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INDEX TO THE BULLETIN OF THE PAN AMERICAN UNION

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[The Index to illustrations will be found on p. xviii.]

	Page.
Agriculture, notes.....	73, 194, 320, 440, 569, 711
AMERICAN RED CROSS, POST WAR WORK.....	284
ARGENTINA:	
Anniversary of Argentine Republic.....	105
Bank statement.....	215, 337, 460, 548, 585
Beef exports.....	711
Board of trade business.....	337
Branch bank.....	723
Building construction.....	599
Budget.....	723
Cattle sales.....	570
Chemical congress.....	480
Civil code.....	105
Commerce.....	73, 440, 711
Cotton cultivation.....	195
Customs receipts.....	585
Dairy industry.....	570
Diplomatic and consular instruction.....	231
Economic conference.....	602
Exports of agricultural and stock products.....	569
Female labor decree.....	100
Flax exports.....	569
Foreign capital invested.....	337
Gold reserve.....	92
House of deputies.....	597
Iguazu Falls.....	320, 444
Insurance.....	92
International High Commission.....	585
Marble quarries.....	195
Meat exports.....	194, 290, 320, 570
Medical Preparatory School.....	103
Milk production in 1918.....	194
Mine census.....	569
Monument.....	602
Mortgages.....	92
National Chemical Congress.....	359
New Bolivian minister.....	359
New schools.....	476

ARGENTINA—Continued.	Page.
Petroleum deposits and production.....	444
President of the board of trade.....	711
Products exported.....	460
Revenues, export duties.....	92, 460
School statistics.....	103
Stock census.....	569
Stock exposition.....	321
Supreme court.....	602
Taxes.....	585
Telegraph convention.....	734
Wheat areas.....	321
Wheat and flax.....	570
Wool.....	570
ART AND MUSEUM EXHIBITS.....	317
BOLIVIA:	
Banco de la Nación.....	461
Commerce, 1918.....	321, 445
Cultivation of grapes.....	196
Diplomatic pouch service.....	231
Exchange.....	215
Gold on deposit.....	461
Mercantile institution of Valparaiso.....	226
Message of the President, notes.....	359
Metal reserve.....	338
Military zones and commands.....	360
Mineral deposits.....	195
Mineral export.....	570
Mining concessions.....	195
National Bank of Bolivia.....	338
New ministers plenipotentiary.....	232
Petroleum zones.....	570
Powder and explosives.....	195
Radio telegraph station.....	106
Railroads.....	321, 571
Potosí-Sucre Railway.....	76
Revenues.....	338, 461
Tin export.....	195
Tin.....	76
Tobacco monopoly.....	461
Treaty, extradition, Brazil.....	596
Book notes.....	116, 242, 369, 494, 615, 741
BRAZIL:	
Academy of Commerce.....	599
Aerial navigation.....	360
Aerial service.....	572
Agriculture.....	78
Alinga production.....	447
Animal export.....	322
Banks.....	93, 216, 462, 586
Birds of.....	159
Boundary treaty, Uruguay.....	349
Boundary treaty, Uruguay.....	596
Branch banks.....	93

BRAZIL—Continued.

	Page.
Budget, 1920	339
Cabinet.....	232
Cable service.....	713
Cattle exposition.....	572
Census.....	232
Civil code.....	224
Civil registry.....	597
Coffee export.....	322
Coffee production of São Paulo.....	446
Commerce.....	196, 445
Commerce with Argentina.....	712
Commercial information service.....	322
Convention of arbitration.....	713
CORN CULTURE.....	660
Cotton crop.....	323
Cultivation of the Guayule.....	572
Debt statement.....	339, 586
Dental congress.....	107
Dr. EPITACIO PESSOA.....	12
Economic conference.....	603, 735
Exhibits of English manufactures.....	77
Exploration of the Andes.....	735
Exposition.....	572
Foreign debt statement.....	215
Foreign trade.....	571
General taxes.....	339
Geographical congress.....	735
Government appropriation.....	226
Grain exposition.....	322
Health department.....	360
Horses and mules.....	76
Immigrants.....	106
Immigration statistics.....	480, 602
INTERIOR CITIES.....	22
International convention, bills of exchange.....	596
Loans.....	586
Lumber industry.....	323
Manganese ore.....	712
Maize production.....	196
Money orders, treaty with United States.....	596
New consulate in England.....	361
Oil discoveries.....	323
Petroleum deposits.....	572
Petroleum imports.....	324
Port improvement.....	197
Post office.....	107
Proposed submarine cable.....	77
Public instruction.....	476
Radio school.....	732
Railways.....	77
Revenues.....	215, 339, 586
Rio Grande do Sul banks.....	216
Rubber exports.....	712

BRAZIL—Continued.	Page.
SÃO PAULO, MANUFACTURES OF.....	274
Shipbuilding.....	572
Steamship line.....	322
Sugar export.....	323, 712
Telegraph statistics.....	232
Timber trade.....	571
Tobacco exports.....	196
Treaty of extradition with Bolivia.....	596
Treaty regarding postal pouches, Venezuela.....	99
Wheat crop.....	323
Yokohama bank.....	93
BUSINESS TRAINING FOR ENGINEERS.....	71
CARNEGIE, ANDREW, THE WORLD'S GREATEST PHILANTHROPIST.....	249
CARNEGIE'S INTEREST IN THE PAN AMERICAN UNION.....	257
CHILEAN CONVEYANCES, YESTERDAY AND TO-DAY.....	62
CHILE:	
Aviation.....	603
Aviation in Chile and crossing the Andes.....	298
Banks.....	340, 587
British commerce.....	713
Budget.....	340, 341, 600
Building construction.....	227
Cabinet.....	735
Census.....	232, 482
Centenary of discovery of Chile.....	107
Cereal export decree.....	574
Chamber of Commerce at Puerto Montt.....	449
Chilean Trans-Andean Railway.....	714
Coal consumption.....	447
Coal deposits.....	198
Coast-wise law.....	224
Commerce.....	324
COMMERCIAL AND INDUSTRIAL EDUCATION.....	177
Congress of primary education.....	358
Crops.....	324
Debt statement.....	341
Education congress.....	227
Educational statistics.....	600
Exchange of professors.....	357
Export of hides.....	79
Fiscal bonds.....	463
French military commission.....	107
Government deposits.....	217
Government lands.....	587
Grain production.....	447
Harbor construction.....	79
Industrial education.....	600
Inheritance tax.....	587
Interchange of diplomatic pouches, Mexico.....	596
Iron.....	79
Irrigation.....	197
Italian-Chilean steamship line.....	197
LUNCHEON IN HONOR OF CHILEAN AMBASSADOR.....	562

CHILE—Continued.	Page.
Medical society.....	481
Merchant Marine.....	573
Meteorological station.....	481
NAHUEL-HUAPI NATIONAL PARK.....	181
National congresses.....	232, 482, 603
National Institute of Criminology.....	232
National revenue, 1920.....	587
New consul in Los Angeles.....	361
Night schools.....	732
Nitrate district.....	107
Nitrate exports.....	78
Nitrate precipitation process.....	198
Nitrate production.....	197, 448
Paper conversion.....	341
Penal institutions.....	232
Presidential laws.....	79
President of chamber of commerce.....	448
Prohibition law.....	107
Prohibition league.....	481
Public works.....	448
Railway congress.....	108
Receipts and expenditures.....	217
Red Cross.....	603
Reform school.....	226
Reorganization of cabinet.....	361
Reorganization of department of labor.....	573
Revenues.....	218, 463
Sale of nitrate.....	714
Santiago Chamber of Commerce.....	78
Scientific congress.....	107
Stock exports.....	325
Tobacco industry.....	447
Trade with Argentina.....	324
COLOMBIA:	
Addition to Cartagena district.....	108
Aerial Mail.....	108
Agricultural census.....	600
Argentine Military College.....	227
Aviation.....	361, 604, 715
Banks.....	464, 588
Boundary treaty with Ecuador.....	349
Budgets.....	463, 589
Cabinet.....	736
Cable service.....	482
Census.....	482
CENTENNIAL OF BOYACA.....	373
Coffee crop.....	325
Coffee statistics.....	450
Coining of money.....	341, 463, 589
Colleges.....	732
Commerce.....	714
Commercial commission.....	199
Commercial mission.....	326

COLOMBIA—Continued.	Page.
Concordat Convention, Holy See.....	729
Corporation and public officials' duties.....	597
Duty on salt imports.....	199
Emerald mines.....	199, 714
Exchange.....	218
Exports of gold coin.....	218
Extension of railways.....	79
Gold coined.....	464
Gold exports.....	93
Guano deposits.....	199
Highway construction.....	80, 199, 736
Improvement of rivers.....	80
Internal debt bond issue.....	218, 341
Loans.....	94, 218, 342, 464, 588, 589, 724
Medical congress.....	233
Milk station.....	233
Mineral discoveries.....	326
Money in circulation.....	464
Monuments erected.....	482, 603
National congresses.....	483
Navigation.....	80, 715
New envoys plenipotentiary.....	604
New mineral deposits.....	200
New ministers.....	233
Nickel coin.....	724
Notes.....	588
Oil fields.....	325
Oil land grants.....	350
Platinum export.....	574
Police school.....	732
Population statistics.....	361, 604
Port improvement.....	198
Postage stamp issue.....	724
Public works.....	736
Radio Station at Puerto Velillo.....	362
Railway construction.....	80, 199
Receipts and expenditures.....	464
Red Cross.....	233
Revenues.....	341
Salt mines.....	449
Scholarship contest.....	227
School of dentistry.....	358
School of stenography.....	358
School statistics.....	477
Statues.....	604, 736
Statue to Bolivar.....	109
Sugar factory.....	575
Tobacco exports.....	449
Tobacco industry.....	326
Treasury certificates.....	724
University for women.....	227
Vital statistics.....	482
Commerce, Notes.....	73, 194, 320, 440, 569, 711

	Page.
COMMERCIAL CONFERENCE, THE SECOND PAN-AMERICAN.....	1
CONFERENCE, THE SIGNIFICANCE OF THE.....	191
Congress of Commercial Associations.....	735
COSTA RICA:	
Banana industry.....	80
Cement industry.....	80
Cultivation of oleaginous plants.....	81
Elections.....	605
Expenditures.....	589
Free milk station.....	604
New cabinet.....	605
New minister of commerce and treasury.....	110
Radio telegraph stations.....	110
Revenues.....	589
CUBA:	
Aerial freight service.....	716
Aerial mail service.....	362
American hospital.....	234
Anniversary of Habana.....	605
Appropriations.....	343
Automobile manufactures.....	201
Bank dividends.....	219, 342
Banks.....	465
Building construction.....	732
Census.....	233
Chamber of Commerce of Habana.....	201
CITRUS INDUSTRY.....	681
Coining of silver.....	465
Commerce.....	81, 715
Commercial service bureau.....	81
Criminal statistics.....	234
Cuban-American Aircraft Corporation.....	483
Customs revenues.....	725
Development of asphalt and oil fields.....	450
Discovery of oil in Guanabacoa.....	450
Drug and medicine trade.....	328
Educational system.....	352
Electoral code.....	473
Electric railway.....	201
Exports to Argentina.....	575
Fish consumption.....	326
General statistics.....	450
Highway construction.....	82
Honorary degrees.....	600
Import of sugar cane.....	327
Inspector general of census.....	362
International Bank of Cuba.....	94
International Bank of Habana.....	590
International High Commission.....	736
Live stock importation.....	81
Manufacture of railroad cars.....	201
Minister of public instruction.....	736
Navigation.....	81, 575

CUBA—Continued.

	Page.
Next tobacco crop.....	716
Organic judicial law.....	473
Pension law.....	474
Pharmacists cooperative society.....	200
Postal tariff.....	590
Public telephone and telegraph service.....	483
Public works.....	590
Radio telegraph station.....	11
Resumption of freight connections with Antwerp.....	200
Revenues.....	219, 465
Sale of land.....	82
Sanitary service.....	605
Stamp tax.....	219
Statues and monuments.....	483
Stock breeding station.....	200
Stock quarantine stations.....	200
Sugar cane.....	715
Sugar exports.....	575
Sugar factories.....	201
Sugar production.....	82, 576
Sugar statistics.....	327, 450
Teachers' retirement law.....	598
Telephone communication.....	736
Tobacco business.....	451
Tobacco export.....	715
Tobacco manufactures 1918.....	201
Trade-mark protection.....	110
Transportation improvements.....	327

DOMINICAN REPUBLIC:

Agricultural and Industrial Exposition.....	452
Aqueduct.....	484
Cathedral.....	606
Census.....	234
Coastwise trade.....	328
Commerce 1918.....	82
Commission of claims.....	465
Cooperative society.....	451
Dental diploma.....	601
Electric plant.....	606
Free schools.....	104
Geodetic Survey.....	111
Government bonds.....	219
Highway construction.....	82, 202, 452
Improvement of rivers.....	83
Import and export tariff.....	599
Importation of cotton seed.....	82
Import tax.....	465
Irrigation of the Banegas section.....	82
Loan.....	344
Mining code.....	100
Municipal congress.....	484
Navigation.....	576
New consul from Bolivia.....	111

DOMINICAN REPUBLIC—Continued.

Page.

Official statistics.....	363
Property tax.....	100
Public works.....	344
Railway service.....	82
Revenues.....	220, 465
Rural census.....	234
Sanitary code.....	605
School statistics.....	477
Shipping.....	328
Sugar production.....	202
Traffic regulations.....	606
Wheat cultivation.....	202

Economics, Notes.....	92, 215, 337, 460, 584, 723
-----------------------	-----------------------------

Ecuador:

Association of agriculturists.....	203
Boundary treaty with Colombia.....	349
Cacao blight.....	203
Cacao export.....	83, 202
Congress of students.....	606
Consular changes.....	235
Cotton factory.....	329
Course in philosophy.....	228
Exchange.....	220
Exposition.....	329, 576
Fiscal receipt.....	466
Hides export.....	202
Hydroelectric plant.....	111, 737
Liquor decree.....	344
Loans.....	220
National army.....	484
National congress.....	484
New minister of foreign relations.....	111
Normal school.....	229
Observatory.....	484
Public debt.....	466
Public instruction.....	478
Public works.....	466
Railway bonds.....	94
Railway construction.....	452
Sanitation.....	606
School statistics.....	478
Stamp issue.....	235, 484, 590
Tax on railway receipts.....	83
Transportation improvement.....	203
Treaty of Friendly Relations, Commerce and Navigation.....	597

Education, Notes.....	103, 226, 352, 476, 599, 732
-----------------------	------------------------------

ELEM OF TROPICAL AMERICA.....	66
-------------------------------	----

Finances, Notes.....	92, 215, 337, 460, 584, 723
----------------------	-----------------------------

General notes.....	105, 231, 359, 480, 602, 734
--------------------	------------------------------

GUATEMALA:

Agricultural experiment station.....	577
Aviation school.....	479
Bridge construction.....	204

GUATEMALA—Continued.		Page.
Cattle and sheep exhibition.....		453
Cereal production.....		453
Coffee dryer.....		329
Commercial travelers' treaty, United States.....	99,	472
Consular promotions.....		236
Consul general to Barcelona, Spain.....		364
Elections.....		112
Electric power.....		203
Enemy-alien property decree.....		454
Exchange.....		467
Hat-making school.....		358
Highway construction.....		453
Hospital.....		485
Military Academy.....		485
Monuments.....		607
Municipality loan.....		95
Municipal works.....		485
National budget, 1920.....		94
New customs tariffs.....	83,	204
New minister from Salvador.....	236,	364
New schools.....		229
Penal code.....		100
Pineapple cultivation.....		204
Railway improvement.....		330
Reconstruction stamp issue.....		364
Sanitation.....		606
Teachers' society.....		737
Treaty of peace.....		485
HAITI:		
Aerial mail.....		607
Aero station.....		364
Agricultural exhibition.....		84
Auto import.....		205
Census commission.....		358
Commerce.....		205
Consulate.....		485
Corn crop.....		330
Cotton cultivation.....		205
Election law.....		474
Export restriction decree.....		454
Foreign trade.....		577
General census.....		486
Highway construction.....		236
Instruction.....		479
Irrigation.....	84,	716
Law school.....		733
Lawyers' association.....		485
National Bank of Haiti.....		95
National institute.....		733
Navigation.....	578,	716
New high school.....		607
New tax law.....		350

HAITI—Continued.	Page.
Postal service.....	730
Public buildings.....	485
Railway line.....	607
Receipts and expenditures.....	467
School of agriculture.....	358
Trade-marks.....	224
Withdrawal of paper currency.....	101
HENEQUEN INDUSTRY OF YUCATAN, MEXICO.....	640
HONDURAS:	
Budget, 1919-20.....	221
Carbide of calcium import.....	716
Customs receipts.....	591
Dry dock.....	578
Freight wharf.....	84
Gold coin.....	591
Gold and silver mines.....	84
Issuance of postage stamps.....	112
Mangle bark.....	206
Mineral export.....	205
Municipal library.....	608
Navigation.....	206
New consul of Nicaragua.....	608
Oil concessions.....	84
Oil fields and coal mines.....	716
Opening of Trujillo Railway.....	84
Presidency.....	608
Radio station.....	112
Trade-mark protection.....	84, 101
WRITERS OF.....	187
Industry, notes.....	73, 194, 320, 440, 569, 711
LATIN AMERICAN FOREIGN TRADE IN 1918—General Survey.....	545
Legislation, notes.....	100, 224, 350, 473, 597, 730
MEXICO:	
Aero express service.....	579
Agriculture, 1918.....	209
Army.....	487
Auto club.....	608
Bank of Commerce and Industry.....	591
Buckwheat and castor beans.....	330
Commerce, 1918.....	207
Twenty-sixth congress.....	486
Congress of the chambers of commerce.....	237
Consular fees.....	345, 467
Corn crop.....	579
Cotton crop, 1918.....	578
Cotton exports.....	717
CULTURE OF FRUIT TREES.....	415
Currency in circulation.....	468
Diplomatic relations.....	486
Discovery of rubber forest.....	85
Emigration and immigration.....	486
Exchange.....	592
Farming by motion pictures.....	210

MEXICO—Continued.	Page.
Food boards.....	717
Foreign claims.....	467
Foreign debt statement.....	95
Free school of oil engineers.....	103
Gold coin.....	725
Governmental receipts.....	725
Government tax decree.....	236
Henequen decree.....	330
Henequen exports.....	85
Hydroplane coast guard.....	113
Immigration.....	718
Industrial census.....	455
INTELLECTUAL PROGRESS.....	54
Interchange of diplomatic pouches, Chile.....	596
Ixtle exports 1918.....	85
Judicial police.....	737
Laborers' congress.....	113
Law for reparation of damages.....	474
Liabilities.....	221
Metal production, 1918.....	85
Mexican Commercial Museum.....	86
Mineral exports.....	330
Mineral production.....	454
Modern machinery.....	717
Monetary commission.....	725
Municipal budget.....	725
National merchant marine.....	487
National monetary commission.....	591
Naturalization.....	486
Navigation.....	579
New magistrate of supreme court.....	112
New onyx mine.....	85
New postal system.....	487
New secretary of industry and commerce.....	112
Oil industry.....	209
Organization of municipalities.....	730
Passports.....	737
PERU AND THE MANILA GALLEON.....	670
Petroleum companies.....	718
Petroleum deposits.....	579
Petroleum exports.....	718
Petroleum production.....	455
Platinum deposits.....	85
Population census.....	737
Postal money orders.....	725
Radio telegraph station.....	236
Railroads.....	208
Railway construction.....	331
Rapid transportation service.....	86
Revenues.....	468
Salt mines.....	455
School of aviation.....	220
Secretary of treasury.....	608

MEXICO—Continued.

	Page.
Steamship line.....	717
Tax.....	592
Telegraph and telephone service.....	487
Tobacco factories.....	330
Trade with Central America.....	210
MONETARY SYSTEMS, LATIN AMERICAN.....	280

NICARAGUA:

Aerial mail service.....	87
Agricultural society.....	610
Banana cultivation.....	210
Banana plantation.....	718
Census.....	610
Civil code.....	738
Coal deposits.....	580
Coffee cultivation.....	456
Commerce 1918.....	331
Corn exports.....	456
Fruit production.....	580
General taxes.....	345
Highway construction.....	210, 580
Importation of blooded stock.....	456
Internal debt.....	345
Laborers' unions.....	113
Minister from Honduras.....	487
National revenues.....	581
Navigation.....	210
New consul general in New York.....	238
New consul to Los Angeles.....	113
New legation in Managua.....	238
Northern highroad.....	718
Parcel post imports.....	238
Peruvian balsam.....	718
Petroleum.....	580
Powder manufacture.....	580
Primary schools.....	229
Public health measure.....	237
Public works.....	581
Radio telegraph stations.....	113, 237
Railway construction.....	86
Revenues.....	468
Sanitation.....	609
School of dental surgery.....	104
Sugar exports.....	580
Tax on real estate.....	718
Telephone and telegraph lines.....	238, 487
Tobacco consumption.....	456
Tobacco crop.....	210
Wood export.....	718

PANAMA:

Agricultural colonies.....	87
Alien decree.....	350
Anniversary.....	238
Anniversary of the city of Panama.....	114

PANAMA—Continued.	Page.
“Black palm”	211
Budget 1919 to 1921	346
Census	738
Coconuts	581
Code of public instruction	104
Commercial travelers' treaty, United States	99
Committee of legal advisers	113
Document registration tax	102
Factories	333
Firearms and ammunition	212
Highway construction	333
National Agricultural Bank	95
National debt loan	96
National revenue	592
Navigation	719
Oil wells	719
Parcel-post agreement with Jamaica	596
Penal Colony	114
Secretary of promotion	610
Stamp tax	365
Statutes	610
Sugar business	211
Sugar factory	87
Surgeons' congress	738
Telegraph improvement	366
Telegraph rates	610
PAN AMERICA IN THE MAGAZINES	302, 699
PAN AMERICAN NOTES	436, 695
PAN AMERICAN UNION, JADE FENCE	565
PARAGUAY:	
Artigas school	733
Banks	97, 593, 726
Bank of the Republic	592
Bank statement	347
Chamber of commerce	721
Commerce	88, 721
Corporation tax	102
Cost of wheat	366
Customs receipts	726
Customs requirements	88
Erection of monument of Pirebebuy	114
Export tax	593
Exposition	333
Extradition treaty with Spain	349
Gold exchange rate	97
Import tax	726
Minister plenipotentiary	738
Monument	738
National coastwise service	721
Navigation	581
Normal schools	733
Pan American Union correspondent	738
Personnel of war officials arranged	114

PARAGUAY—Continued.

	Page.
Secondary schools.....	733
Statistics.....	719
Stock experiment station.....	334
Textile industry.....	334
Treaty extradition, Spain.....	729
Willow cultivation.....	88

PERU:

Banco Mercantil de Peru.....	469
Banks.....	726
Bank of Peru and London.....	98
Bank reserve.....	347
Bureau of labor.....	582
Bureau of the navy.....	488
Chamber of commerce.....	334
Constitutional amendments.....	350
Copper output.....	457
Dental school.....	230
Entry of aliens.....	239
Exploitation of guano.....	89
Exportation of alfalfa seed.....	457
Freight rates.....	721
Grains and vegetables.....	721
Guano deposits.....	212
Hide and skin exports.....	721
Illuminated buoys.....	610
Immigration.....	721
Import taxes reduction.....	721
Irrigation.....	212
Long-distance telephone service.....	367
Medicinal plants.....	457
New cabinet.....	488
Notes.....	469
Sales of food products.....	457
Special lectures.....	601
Subsistence department.....	721
Tax.....	469
Vegetable production.....	212

PERUVIAN AMBASSADOR, LUNCHEON IN HONOR OF.....	69
--	----

PIZARRO, STANDARD OF.....	395
---------------------------	-----

RAILWAY COMMUNICATION BETWEEN PERU AND ARGENTINA.....	262
---	-----

SALVADOR:

Agricultural development.....	213
Anniversary.....	367
Bank reserve.....	347
Budget, 1919-20.....	469, 727
Drainage of Ilopango Lake.....	114
Duty free importation of lumber.....	90
Exchange.....	347
Gold coinage.....	594
Gold and silver discoveries.....	213
Highway improvement.....	213
Income tax law.....	470
Loan.....	470

SALVADOR—Continued.	Page.
Mechanical school.....	230
Mining.....	89
New city.....	611
New currency unit.....	594
New gold and silver deposits.....	90
New judges of western court.....	114
New minister.....	114
Occidental Bank.....	593
Oil discovery.....	212
Organization of Red Cross.....	115
Pan American Financial High Commission.....	239
Receipts and expenditures.....	593
Reorganization of military forces.....	239
School promotion campaign.....	479
Silver export.....	594
Sugar and coffee tax.....	458
Tax.....	593
SOUTH AMERICAN OBSERVATIONS.....	519
SPANISH IN NEW YORK SCHOOLS.....	656
SPANISH, TEACHERS' ASSOCIATION.....	72
TARIFFS, LATIN AMERICAN:	
PART I.....	37
PART II.....	154
TRANS-ANDEAN RAILROAD.....	649
TRANS-ATLANTIC FLIGHTS.....	46
Treaties, Notes.....	99, 223, 349, 472, 596, 729
URUGUAY:	
Additional license tax.....	728
Aero navigation.....	582
Arbitration treaty with Great Britain.....	223
Bank of the Republic.....	98, 595
Bank statement.....	347
Boundary treaty with Brazil.....	596
Boundary survey.....	739
Boundary treaty with Brazil.....	349
Budget 1918-19.....	470
Bureau of patents and trade marks.....	335
Commerce.....	214, 335, 458
Commercial travelers' convention with United States.....	472
Commission in official publications.....	115
Consolidated debt.....	727
Customs receipts.....	470, 727
Decree concerning diplomats.....	102
Election of officers of national congress.....	116
Exchange.....	470
Export permits.....	722
Foreign trade.....	582
Governmental expenditures.....	727
Hospital.....	612
Japanese commercial commission.....	90
Live-stock exhibition.....	336
Live-stock exportation.....	214
Meat export.....	459, 722

URUGUAY—Continued.

	Page.
Mechanics' courses.....	734
Military construction.....	115
Military delegation.....	738
Montevideo budget.....	727
Monument.....	116
National commission of physical culture.....	601
National stock, agricultural, and industrial exposition.....	90
New bank of the Republic.....	611
New minister of foreign relations.....	489
New schools.....	601
Packing-house industry.....	458
Pan American congress of architects.....	612
Production of cereals.....	335
Public debt.....	222
Public revenues.....	470
Public works loan.....	98
Quarantine inspection.....	240
Railway improvement.....	90
Real estate tax.....	599
Real property tax law.....	727
Revenues.....	348
Sanitarium bonds.....	98
Secretary of state appointed.....	367
Silver coin.....	728
Stock of gold.....	594
Stock production.....	335, 458
Telegraph improvement.....	367
Time-tables.....	722
Transportation congress.....	612
Vital statistics.....	489
Wheat.....	722
Wood export.....	214

UNITED STATES:

Arbitration treaty with France.....	472
Arbitration treaty with Italy.....	473
Arbitration treaty with the Netherlands.....	472
Arbitration treaty with Spain.....	472
Commercial travelers' convention with Guatemala.....	472
Commercial travelers' convention with Uruguay.....	472
Commercial travelers' treaty with Guatemala.....	99
Commercial travelers' treaty with Panama.....	99
Commercial travelers' treaty with Venezuela.....	223
Money orders agreement with Brazil.....	596
NEW ORLEANS, THE GATEWAY TO THE MISSISSIPPI VALLEY.....	134
SAFETY FIRST IN MINING.....	428
STANDARDIZING AND GRADING GRAIN.....	400

VENEZUELA:

Alien law.....	224
Asphalt mines.....	214
Banco de Maracaibo.....	728
Bank dividends.....	348
Banks.....	471
Boundary surveyor.....	612

VENEZUELA—Continued.	Page.
Census law.....	351
CENTENARY OF THE BATTLE OF BOYACA.....	125
Centennial.....	368
CITY OF CARACAS.....	497
Coffee cultivation.....	214
Commerce.....	91, 583
Commercial travelers' treaty with United States.....	223
Consulate general in Cuba created.....	369
Debt statement.....	471
Diplomatic debt.....	728
Director general of census.....	490
Experimental agricultural station.....	583
Extra dividend.....	595
Firearms' decree.....	459
Fishing industry.....	91
Gold on hand.....	471
Law of the call of national defense.....	351
MARACAIBO OIL FIELDS.....	554
Mineral operations.....	583
Minister plenipotentiary from United States.....	368
Mountains and rivers law.....	731
National budget.....	728
Navigation.....	583
New minister from Mexico.....	368
New schools.....	230
Oil development.....	336
PAINTING.....	621
Primary education.....	602
Public works.....	241
Puerto Cabello Chamber of Commerce.....	214
Railway construction.....	459
Statue.....	612
Tax on pearls.....	595
Treaty regarding postal pouches, Brazil.....	99
Unclaimed and public lands.....	731
Uruguayan mission.....	739
Wireless development.....	490, 739

INDEX TO ILLUSTRATIONS.

Andean Railroad country.....	265
ARGENTINA:	
After leaving the International tunnel.....	532
Buenos Aires.....	535
Cattle exhibition at Palermo.....	296
Cattle land.....	295
Exhibition of blooded bulls.....	293
La Plata cold-storage works.....	293
Meat industry, The.....	292
Mendoza—Vineyard.....	533
The Pampa.....	291
Stockyards at Buenos Aires.....	293

	Page.
Armenia, Red Cross workers.....	387
Belgrade, Red Cross playground.....	388
BOLIVIA:	
Atocha Station	526
Atocha Station—Merchandise awaiting shipment	526
Bridging Minaza River	652
Finished roadbed.....	652
Gorge near Tupiza.....	267
Lake Titicaca.....	523
Living quarters of construction gangs.....	651
Oruro—Office of the national bank.....	524
Road from Tupiza to La Quiaca.....	270
Rock cut.....	654
Scene near La Paz.....	650
Type of locomotive in use.....	651
Yerbabuenani.....	654
Yungas Station.....	655
Near Yungas terminal	655
BRAZIL:	
Bello Horizonte—	
Department of interior.....	29
Executive mansion.....	29
Law school.....	27
Treasury department.....	27
Boatbill.....	167
Brazilian cardinal.....	175
Brazilian hermit hummer.....	161
Brazilian teal.....	165
Corn and coffee plantation.....	661
Cornfield.....	663
Corn gathering in State of São Paulo.....	665
Cujubi Guan	167
Curitiba—	
Panoramic view.....	32
University of Parana.....	30
Cuvier's toucan.....	165
Diamond sections of Minas Geraes.....	24
Drying corn.....	667
Harpy eagle.....	163
Hawk parrot.....	171
Hoatzin.....	169
King of the flycatchers.....	173
Macaw.....	161
Matto-Grosso wood sparrow	173
Ouro preto.....	23
Para—	
A plaza.....	542
Botanical gardens.....	Cover, July
Pines of Parana State.....	26
Products of São Paulo's factories.....	278
Rhea and its eggs.....	160
Rio de Janerio—Avenida de Rio Branco.....	538

BRAZIL—Continued.

São Paulo—

Page.

Construction of Armour plant..... 540

Industrial plants..... 275

Manufactures..... 276

Municipal Theater..... 35

Plant of Armour & Co..... 540

Street scene..... 33

Ypiranga Museum..... 36

Scene in the gold belt..... 24

Settlers' houses in Parana State..... 26

Carnegie hero medal..... 260

Carnegie, Mr. Andrew..... 250

CHILE:

Automobiles at Viña del Mar..... 65

Chuquicamata—Copper works..... 524

Mount Osorno..... 183

Nahuel-Huapi Park—

Mount Tronador..... 184

Panoramas of Lake Nahuel-Huapi..... 186

Three Brothers Peak..... 185

Peaks of the Andes..... 532

Port of Lake Nahuel-Huapi..... 183

Punta Arenas—Moonlight on the Bay..... Facing p. 373

Santiago—

Plaza de Armas..... 530

Street scenes..... 63

Valparaiso—View of part of city and bay..... 529

COLOMBIA:

Bogota during the centennial of Boyaca..... 376, 380

Centennial of Boyaca..... 374

On the field of battle of Boyaca..... 382

“Quinta” of Bolivar..... 378

Commercial Congress, Second Pan American, delegates to..... 3

Costa Rica, scene near San Jose..... Cover, December

CUBA:

Bainoa—Citrus grove..... 687

Citrus fruit and vegetable exhibit from La Gloria..... 309

Citrus fruit estate on Isle of Pines..... 309

Consolacion del Sur—Citrus nurseries..... 687

Example of rebudding..... 685

Grapefruit tree..... 689

Herradura—Packing plant..... 691

Iron mines, Province of Oriente..... 306

Isle of Pines—

Grapefruit tree..... 683

Orange picking..... 683

Packed grapefruit..... 691

Packing house..... 691

La Gloria—Young citrus trees..... 687

Landscape scene..... 310

Riverside, Orange grove..... 683

Santiago de las Vegas, Ranch..... 304

Truck gardening..... 307

View of Habana..... 303

DOMINICAN REPUBLIC:	Page.
Banana plantation.....	703
Cathedral at Santo Domingo.....	704
Shelling cacao.....	707
Tomb of Columbus.....	706
Tropical growth.....	709
ECUADOR:	
On the Guayas River.....	Cover, September
View near Quito.....	Cover, October
Entertainment in honor of Dr. Pessoa.....	14
France, Versailles—George Washington Statue.....	701
Germany—American sailors at funeral of minister of Cuba to Germany.....	439
Guatemala—Scene along Central Railway.....	Cover, November.
Guatemalan mission.....	698
Gutiérrez, the Cuban patriot.....	Facing p. 1
Jerusalem, Red Cross Hospital.....	385
Kavala, on the Ægean Sea.....	388
Maginnis, Hon. Samuel Abbot.....	697
Mexico, Acapulco.....	675
Mexico, Aguacates.....	422
MEXICO:	
Bale of henequen.....	647
Binding henequen bales.....	647
Coconut palm.....	418
Falls of Juanacatlan, State of Jalisco.....	Facing p. 249
Feeding the stripping mill.....	643
Fruit trees.....	424
Harbor of Acapulco.....	675
Henequen drying field.....	645
Henequen en route to drying field.....	645
Henequen harvest.....	641
Henequen stripping mill.....	642
Newly stripped fiber.....	643
Papaya tree.....	418
Pitahaya (Saguaro), the.....	420
Sisal or henequen press.....	646
Tejecote.....	420
Vineyard.....	422
NC-3 at Ponta Delgada, Azores.....	50
NC-4:	
Crew of, at Horta.....	52
Leaving Trepassey for the Azores.....	48
Newfoundland, Trepassey Harbor.....	47
Oroya Railroad, difficult construction points.....	271
Pan American Annex, the.....	20
Pan American gold medal.....	254
PARAGUAY:	
Lumbering.....	316
Lumbermen.....	315
PERU:	
Arequipa and Mount Misti.....	521
Arequipa Observatory.....	521
Juliaca, a railway junction.....	269
Lima, general view.....	263

PERU—Continued.	Page.
View of Callao.....	272
View of Lima at San Cristobal.....	520
Water tank and turntable on Oroya Railroad.....	269
Pessoa, Dr., and party.....	18
Pessoa, Dr. Epitacio.....	13
Pessoa, Senhora.....	16
Poland, Maccowice, Red Cross receiving depot.....	385
Roadbed in the Andes.....	527
RUSSIA:	
Interior of peasant home.....	391
Red Cross carrying supplies.....	391
Red Cross in Archangel District.....	393
Warsaw, Orthodox Church.....	387
Scenes on the Oroya Railroad.....	266
SERBIA:	
Prishtina.....	386
Antityphus train.....	393
Taxidermy and photography.....	318
Timber lands along the Upper Parana River.....	312
Timber rafts on a Paraguayan river.....	313
Tropical seas.....	Facing p. 621
Tupiza La Quiaca Route, old method of travel.....	264
United States—Andrew Carnegie.....	250
Uruguay, Montevideo—Avenida de Julio.....	536
UNITED STATES:	
Concrete grain elevators.....	407
Floating elevator in operation.....	411
Grain sampler at work.....	403
Grain weight test.....	413
Grain yards.....	405
Interior of a grain barge.....	407
Loading grain.....	411
New Orleans—	
Baronne Street.....	141
Bird's-eye view of cotton warehouse.....	136
Canal Street.....	139
Cotton sheds and freight cars.....	135
Grain elevators.....	138
Latin American editors and correspondents.....	564
New courthouse building.....	144
One of the beautiful residences.....	150
Scene in City Park.....	152
Tulane Medical School.....	145
Tulane University.....	147
The Isaac Delgado Museum of Art.....	148
United States post office.....	142
New York—	
Elevator leg lifting grain.....	409
Floating grain elevators.....	409
Pittsburgh—Bureau of Mines laboratory.....	429
Relatives of miners waiting after explosion in mine.....	433
Rescue corps auto truck.....	435
Rescue corps in action.....	430

UNITED STATES—Continued.

	Page.
Rescuers returning from mine.....	432
Seattle Federal grain supervision office.....	405
Thrashing, cleaning, and sacking.....	400
Washington, D. C.—	
Pan American Annex.....	566
Pan American Annex, jade fence.....	567
Pan American Building.....	252
Pan American Building, Hall of the Americas.....	7
Two of Carnegie's gifts to Washington, D. C.....	258
Wheat harvesting.....	400

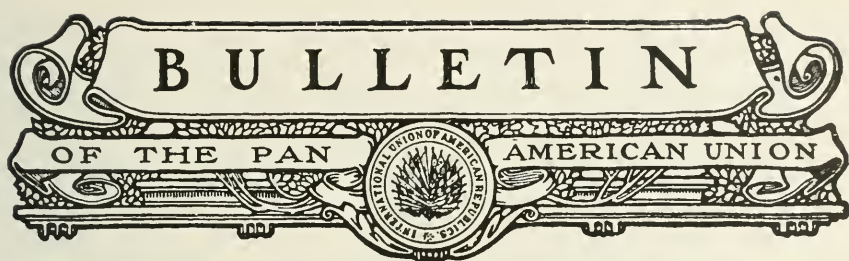
VENEZUELA:

Battlefield of the Boyaca.....	126, 128
Battle of Carabobo.....	625, 627, 629
Bolivar in the Andes.....	130
Camp at Tarra.....	560
Caracas—	
Presidential palace.....	Cover, August
Houses.....	516
Mausoleum of Bolivar in the Pantheon.....	513
Ministry of treasury.....	510
Monument of 19th of April.....	518
Notable buildings.....	501
Palace of Miraflores.....	499
Presidential residence.....	Cover
Scene along Cartuche.....	Facing p. 497
Statue of the Liberator.....	502
Two institutions of higher education.....	514
Views.....	498, 505, 507, 508, 511
Cathedral of Caracas.....	504
Clearing for Tarra Railroad.....	557
Crossing the Andes by Bolivar.....	131
“La Caridad”.....	631
Lake Maracaibo—Launch Colon.....	560
Maracaibo—Refinery at San Lorenzo.....	555
Michelena, Arturo.....	622
“Miracle of the loaves and fishes”.....	635
“Miranda in Prison”.....	637
On the Cunucumuma River.....	Facing p. 125
Pentellea.....	633
Railroad near Tarra.....	559
Rio de Oro—	
Lake of oil.....	557
Oil gusher.....	559
Well No. 1.....	556
Signing of act of Independence.....	623
Tarra—	
Gasoline still.....	555
Well No. 1.....	556
“The Last Supper”.....	639
Toro, Antonio Herrera.....	622
Tovar y Tovar, Martín.....	622
White zapota, the.....	416



MONUMENT TO GUTIÉRREZ, THE CUBAN PATRIOT.

On May 20, 1919, the marble monument reproduced above was unveiled in the Park de la Pastora in the city of Santa Clara, in honor of the Cuban patriot, Miguel Gerónimo Gutiérrez, a martyr of the revolution of 1868, writer, orator, and poet, as well as vice president of the first legislative assembly of free Cuba. The monument is the work of the Italian sculptor, Hugo Luissí.



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No. 1

THE SECOND PAN AMERICAN COMMERCIAL CONFERENCE

THE governing board of the Pan American Union, recalling the success of the first Pan American Commercial Conference held under the auspices of the Pan American Union in February, 1911, and having in mind the great present interest in Pan American trade, decided that much good would result to all concerned—governments, organizations, firms, and individuals—from another informal but comprehensive exchange of views and information between the official and unofficial commercial representatives, trade experts, business men, and other interested parties of both North and South America. Accordingly, it authorized the director general to call the Second Pan American Commercial Conference, which was held in the Pan American Building, in Washington, D. C., from June 2 to 6, 1919.

The ambassador of Mexico, Señor Ing. Ygnacio Bonillas; the minister of Venezuela, Señor Dr. Don Santos A. Dominici; and the minister of Ecuador, Señor Dr. Don Rafael H. Elizalde, were appointed a subcommittee of the governing board to have charge of the arrangements for the conference, and under their direction and advice the director general perfected the details.

Among those invited to attend and participate were the diplomatic, consular, and special commercial and financial representatives and experts in the United States of the Latin American Governments; representatives of Latin American firms and houses, unofficial Latin American experts, and other Latin Americans interested who were

in the United States; the officials and experts of the different departments and bureaus of the United States Government having to do with Pan American economic, financial, and commercial relations; commercial trade organizations, institutions, business firms and houses, and individuals, in the United States, directly interested in Pan American trade.

This conference has marked a new epoch in Pan American commercial relations, as the director general pointed out in his review summarizing the work of the gathering, which was attended by 1,181 official and unofficial commercial experts and business men, of whom about 200 were Latin Americans. Its one great outstanding characteristic has been the expression of the Pan American or all American idea and viewpoint, in which the interests of Latin America, just as much as those of the United States, have been frankly considered and discussed by the most eminent and skilled authorities of both Americas.

The inaugural session on Monday, June 2, was called to order by the director general of the Pan American Union and presided over by Hon. William C. Phillips, the Assistant Secretary of State, in the absence of Hon. Frank L. Polk, Acting Secretary of State and acting chairman of the governing board. The other speakers were: The Vice President of the United States, Hon. Thomas R. Marshall; the ranking ambassador of the governing board, Señor Beltrán Mathieu, ambassador of Chile; the ranking minister of the governing board, Señor Ignacio Calderón, minister of Bolivia; the Speaker of the House of Representatives, Hon. F. H. Gillett; and the president of the Chamber of Commerce of the United States, Hon. Homer L. Ferguson.

In his opening remarks the Assistant Secretary of State said that the most powerful means of fostering friendship was foreign trade when conducted through mutual sincerity and cooperation.

Vice President Marshall expressed his view as to what should be the true interpretation of the Monroe Doctrine, which version might be summarized in the words, "America for Pan America."

The Chilean ambassador's address was an appeal for Pan American mutual confidence, gained through the more intimate acquaintance and frequent trade intercourse that is to be achieved through these conferences.

The minister of Bolivia, Señor Ignacio Calderón, emphasized the result of the war in changing the situation of the United States from a debtor to a creditor nation, and pointed out the significance of this change in the economic and commercial relations among the American nations, the war bringing them nearer to each other.

The Speaker of the House of Representatives, Hon. F. H. Gillett, declared that the United States have not the slightest feeling of envy

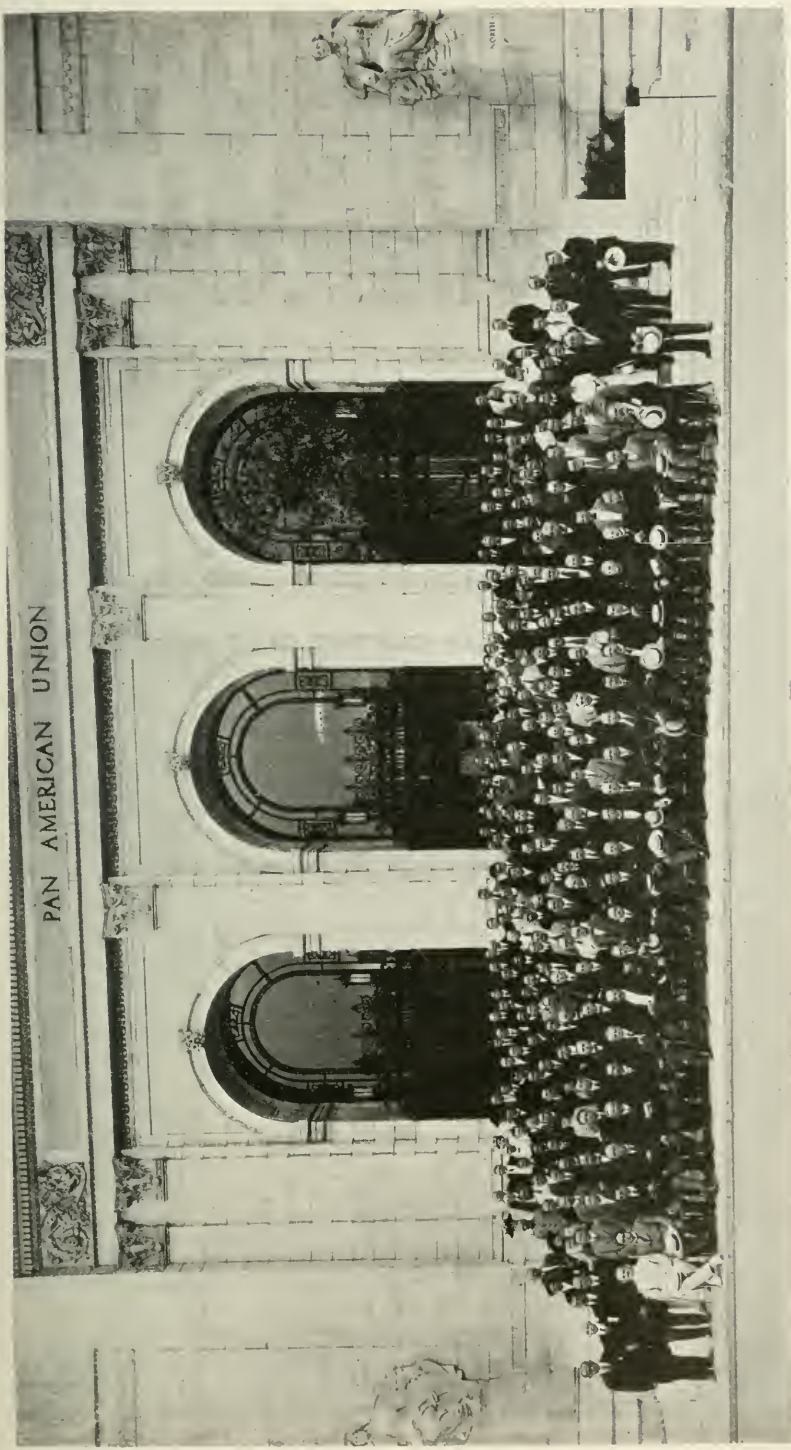


Photo by E. P. Sexton, Washington, D. C.

DELEGATES TO THE SECOND PAN AMERICAN COMMERCIAL CONFERENCE.

In the above group are shown some of the delegates who attended the opening meeting of the Second Pan American Conference on June 2, 1919. Over 700 accredited delegates attended the several meetings. In the picture those seated in the front row, reading from left to right, are: Dr. L. S. Rowe, Assistant Secretary of the Treasury; Dr. Mario Diaz Vial, Director International Trade Fair, Havana, Cuba; Sr. Dr. Toledo Herrarte, Guatemalan Minister of Foreign Affairs; Sr. Don Diego Manuel Chamorro, Minister of Nicaragua; Sr. Don Salvador Soto, Minister of Salvador; M. Charles Moravia, Minister of Haiti; Sr. Don Manuel Gándara, Minister of Paraguay; Sr. Rafael H. Elizalde, Minister of Ecuador; Sr. Carlos Manuel de Céspedes, Minister of Cuba; Sr. Francisco Tudela y Varela, Ambassador of Peru; Mr. William Phillips, the Assistant Secretary of State; Sr. Don Pedro de Caceres, Minister of Bolivia; Sr. Federico M. Quintana, Chargé d'Affaires of Argentina; Mr. John Barrett, Director General, Pan American Union; Sr. Don E. Roldán, Chargé d'Affaires of Panama; Sr. Don Hugo V. de Penn, Chargé d'Affaires of Uruguay; Sr. Don Francisco Sánchez Latorre, Charge d'Affaires of Guatemala; Sr. Don E. Cuatrecasas, Chargé d'Affaires of Honduras; Sr. Dr. Juan B. Rolo, Counselor of the Mexican Embassy; Rear Admiral Caperton, U. S. Navy; Mr. G. G. Taylor, Secretary American Embassy at Rio de Janeiro; Commander C. S. Baker, Aide to Rear Admiral Caperton; Mr. Boaz W. Long, American Minister to Salvador; Sr. Don Francisco J. Yáñez, Assistant Director, Pan American Union.

or hostility to any of the other American Republics, and made an appeal for Pan American solidarity and concord.

Hon. Homer L. Ferguson, president of the United States Chamber of Commerce, outlined the participation of his organization in fostering trade relations with Central and South America, and pointed out the fact that before the United States can deal with Latin America it is necessary to have better means of communication.

In the evening session of Monday, Hon. Louis Brownlow, president of the Board of Commissioners, and Mr. R. N. Harper, president of the Washington Chamber of Commerce, welcomed the delegates on behalf of the District of Columbia and the business men of the Nation's capital, respectively.

After these speeches the actual work of the conference began with the general review of the Pan American commercial situation, taking up the Latin American countries in their alphabetical order. The discussion on Argentina and Bolivia consumed the rest of the session, at which the speakers were Señor Pablo Roth, of the Union Trading Co., of Buenos Aires, and Señor Ingeniero Jacinto Anchorena, of Buenos Aires, both of whom gave some very practical suggestions as to the promotion of business relations between the United States and Argentina. Señor Julio Zamora, financial agent of Bolivia, was prevented by illness from delivering his paper, which was read at the morning session of Thursday.

The Secretary of Commerce, Hon. William C. Redfield, was the first speaker of the morning session of Tuesday, followed by Señor Dr. Francisco Tudela y Varela, ambassador of Peru. Secretary Redfield, after giving a review of past and present trading conditions in the United States, pointed to the spirit of the Department of Commerce, saying that the interests of the countries of the Western Hemisphere are mutual, all of which are essentially one in any large and in any deep view of commerce and industry, and that the prosperity of North, South, and Central America is inextricably interwoven.

The Peruvian ambassador, Señor Francisco Tudela y Varela, then took the floor, and in his speech offered suggestions for increasing the commercial intercourse between the United States and Latin American countries, with special reference to Peru.

The discussion of countries was then resumed, the remainder of the session being devoted to Brazil and Chile, papers being read by the following: Senhor Theodore Langgaard de Menezes, commercial secretary to the Brazilian embassy; Senhor Sebastião Sampaio, Brazilian consul at St. Louis; Señor Ernesto Montenegro; Señor Felix Nieto del Río, of the Chilean information service; and Señor Enrique Bunster, of Chile.

In the afternoon session of Tuesday the discussion on Chile was continued, and followed by papers and discussions on Colombia, Costa Rica, Cuba, Ecuador, Honduras, Mexico, Nicaragua, Guatemala, and Panama, the speakers being Señor Francisco Escobar, consul general of Colombia in New York; Mr. John Meiggs Keith, president of the chamber of commerce, San Jose, Costa Rica; Señor Porfirio A. Bonet, commercial attaché to the Cuban legation; Señor Gustavo R. de Yeaza, consul general of Ecuador in New York; Señor Francisco Sánchez Latour, chargé d'affaires of Guatemala; Mons. Charles Moravia, minister of Haiti; Señor R. Camilo Diaz, chargé d'affaires of Honduras; Señor Juan B. Rojo, counsellor to the Mexican embassy and chargé d'affaires; Señor Pedro Gómez Rouhand, of Nicaragua and New York; and Señor J. E. Lefevre, chargé d'affaires of Panama.

At the evening session the minister of Paraguay, Señor Manuel Gondra, opened the discussion on his country, which was followed by papers and discussions on Peru, Salvador, Uruguay, and Venezuela, led by the following speakers, respectively: Señor Carlos Alvarez Calderón, of Peru; Señor Atilio Peccorini, secretary of the legation of Salvador; Señor José Richling, consul general at large of Uruguay; Señor José Santiago Rodríguez, of the special financial mission of Venezuela; and Señor Nicolás Veloz, consul general of Venezuela at New Orleans.

The discussion of special commercial topics was begun at the evening session of Wednesday, devoted to the subject of shipping and other transportation including aviation.

Hon. Edward N. Hurley, chairman of the United States Shipping Board, opened the discussion with an address in which he made the important announcement as to new steamship lines to be inaugurated in November, and which will cover all ports of Latin America.

The mayor of New Orleans, Hon. Martin Behrman, then took the floor, and was followed by Mr. George L. Duval, of Wessel, Duval & Co., who delivered a most practical address, in which he called attention to the fact that shipping is of course important, but only as a means, the main thing being to get the goods to be transported by ships.

The addresses on aviation which followed, by Mr. Augustus Post, secretary of the Aero Club of America, Capt. Charles J. Glidden, and Capt. M. L. McCullough, United Army Air Service, showed how practicable it is and how near we are to seeing aviation render most valuable help in the promotion of Pan American trade. Dr. Grosvenor M. Jones, Assistant Director of the Bureau of Foreign and Domestic Commerce, also delivered a paper on the subject of shipping.

Trading methods, including merchandising, commission service, and direct trade, export, and import combinations, weights and

measures, etc., were the subjects discussed during the afternoon session of Wednesday, which was opened by Dr. Burwell S. Cutler, Director of the Bureau of Foreign and Domestic Commerce. The other speakers of the afternoon were Señor Carlos Arellano, of Mexico City; Señor E. T. Simondetti, of New York; Dr. William Notz, of the Federal Trade Commission; Mr. Benjamin Catchings, of New York; Dr. George F. Kunz, president of the American Metric Association; and Mr. F. A. Halsey, commissioner, American Institute of Weights and Measures.

Hon. Otto Praeger, Second Assistant Postmaster General, opened the discussion of the evening session of Wednesday, the topics being parcel post, trade-marks and copyrights, consular and other trade regulations. The discussions were led by Mr. Frutos Plaza, of Montgomery Ward & Co.; Dr. M. Díaz Irizar, director International Trade Mark Bureau, Habana, Cuba; Hon. James K. Newton, United States Commissioner of Patents; Señor Vicente Gonzales, trade adviser, Mercantile Bank of the Americas, New York; Dr. Frank R. Rutter, statistical adviser, Bureau of Foreign and Domestic Commerce.

The very important subjects of financing trade, investments and loans, including credits and government aid to commerce, were taken up at the Thursday morning session, presided over by Dr. Leo S. Rowe, Assistant Secretary of the Treasury, who, in his opening address, made inspiring statements regarding the strengthening of the Pan American financial situation. In the course of his address Dr. Rowe announced that President Wilson has decided to convene the Second Pan American Financial Conference on Monday, January 12, 1920.

Mr. Frank A. Vanderlip, until recently president of the National City Bank of New York, then took the floor, delivering one of the most remarkable addresses of the conference, in which he declared that Europe is on the verge of industrial collapse—a catastrophe from which she can be saved if there should be a group of nations, including all the countries of America, which would lend not money, but materials, equipment, and food necessary to get the European industries started again.

Charles M. Schwab, president of the Bethlehem Steel Co., in a happy address told of his pleasant business experiences with the South American countries, and declared that he and his company had so much confidence in the honorable intentions and treatment of American capital in Latin America that he was risking his all upon the basis of securing the raw supplies of ore and other materials from South America. "I have never," said Mr. Schwab, "had other than the pleasantest, the most straightforward, and the happiest outcome

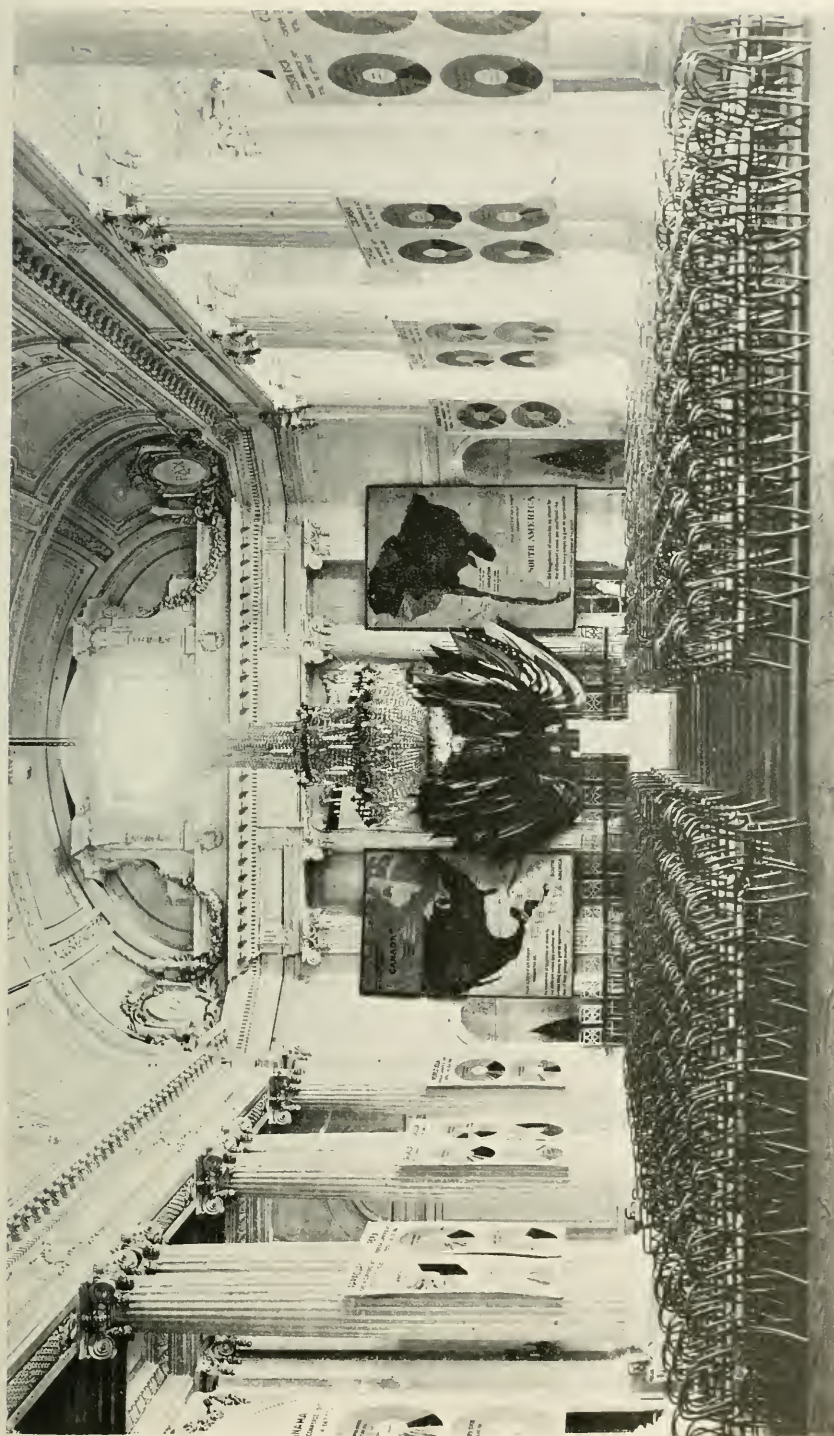


Photo by National Photo Company, Washington, D. C.

HALL IN WHICH THE PRINCIPAL MEETINGS WERE HELD.

The principal meetings of the Second Pan American Commercial Conference were held in the Hall of the Americas of the Pan American Union building. Draped behind the rostrum are the flags of the 21 countries comprised in the Pan American Union; statistical maps of the two continents are shown beside the flags, while on the double columns on both sides of the room are hung charts, showing the latest statistics of the foreign commerce of each of the countries.

to all the business I have ever done in South America, and I am not afraid to risk anything that may develop in that line in the future."

Señor Don Augusto Villaneuva, of Santiago, president of the Bank of Chile, told of the "Experience of Chile in regard to the purpose of that country in diminishing or attenuating partially at least, the very serious inconveniences pertaining to inconvertible paper currency which in Chile had been of such a nature as to substantially disturb the normal development of business for many years."

Señor Julio Zamora, financial agent of the Bolivian Government, spoke of the need for the reorganization of Pan American business. He suggested that the leading men of South America should direct their steps toward bringing about a complete reorganization in the industrial field through a policy of reasonable protection and a spirit of enterprise. He said it was the duty of the United States to look forward to the commercial and industrial development of Latin America because of the preference for United States capital, the elimination of Germany from the field of trade, and the opening of the Panama Canal.

Mr. Julius G. Lay, foreign trade adviser, Department of State, and Mr. H. H. Merrick, president of the Chicago Association of Commerce, also read important papers.

The afternoon session of Thursday was devoted to the discussion of engineering aids to commerce, and was attended by many prominent engineers, among them Percival Farquhar, of New York; H. C. Parmelee, of New York, who presided; Charles Whiting Baker, consulting engineer; V. L. Havens, editor *International Engineering*; Maj. George A. Soper, of New York, representing the Sanitary Corps of the Surgeon General's Office, and C. W. Sutton, of New York.

The session of Thursday evening was expressly set aside in the program for subjects which had been postponed or were not classified, the speakers being Mr. Herbert S. Houston, editor of the Spanish edition of *World's Work*; Señor Pedro R. Rincones, consul general of Venezuela in New York; Capt. H. R. Moody, packing service, United States Army; Mr. Frederick L. Hoffman, vice president and statistician, Prudential Insurance Co.; Mr. Leon N. Bensabat, of Rio de Janeiro, and Mr. Peter H. Goldsmith, American Association for International Conciliation.

The session of Friday morning was devoted to topics related with commercial intelligence, including advertising and publicity, and newspapers and periodicals. Mr. Frank P. Noyes, president of the Associated Press, delivered the opening address, in which he declared that the distribution of unbiased news is more powerful than any propaganda that can be carried out.

Mr. John L. Merrill, of New York, president of the All America Cables, another speaker at the morning session, declared that "the

manufacturers and merchants are beginning to realize that the world's important commerce belongs in the wires and not in the mails." He said that the All America Cables is "American through and through." During the week the conference had been in session a cable had been installed in the Pan American building, linking up directly through New York with the cables to Latin America, covering more than 18,000 miles.

The aid being given to industry by the business press was discussed by A. C. Pearson, of New York, president of the Associated Business Papers. He declared that the present Webb-Pomerene bill "which promises so much for foreign trade in the United States was made possible largely by the cooperation of the business papers." He said that in order to succeed, however, they must "make a thorough study of foreign conditions."

Other speakers at the Friday morning session, which was presided over by Mr. John Vavasour Noel, of New York, president of the Noel News Service, included Señor Alfredo H. Collao, publisher of *La Prensa* of New York, who told of the needs of further publicity in regard to Latin American affairs in order to build up Pan American trade; Mr. W. W. Davies, representing *La Nación*, of Buenos Aires, and Mr. Robert S. Barrett, former commercial attaché at Buenos Aires.

At the closing session of the conference Friday afternoon, which was devoted to a discussion of educational and social auxiliaries to commerce, including vocational training, language study, exchange of students and professors, Señor Francisco J. Yánes, assistant director of the Pan American Union, declared, in his opening address, that "the unceasing work of the Pan American Union in encouraging the study of English in Latin America and that of Spanish in the United States is showing splendid results, the study of Spanish in this country having made great strides."

In addition to Assistant Director Yánes, other speakers at the afternoon session were Dr. Samuel McClintock, Federal agent for Foreign Trade Education; Dr. Roy S. McElwee and Dr. W. E. Dunn, of the Bureau of Foreign and Domestic Commerce; Prof. J. Moreno-Lacalle, assistant professor of Spanish, United States Naval Academy; Dr. H. E. Bard, secretary Argentine-American Chamber of Commerce, New York; Miss C. E. Mason, Tarrytown on Hudson, N. Y., president of the Pan American Round Table; and Mrs. Glen Levin Swiggett, of Washington.

Dr. Luis F. Corea, former minister of Nicaragua, vice president of the K-P Corporation, New York, after brief remarks, introduced a resolution of thanks to the governing board of the Pan American Union and to Director General Barrett, which was unanimously carried.

The Hon. Breckenridge Long, Assistant Secretary of State, on behalf of the Acting Secretary of State, then addressed a few words of farewell to the delegates.

Finally, Director General Barrett, before adjourning the conference *sine die*, gave a general review of the work accomplished by it and summed up its conclusions as follows:

If the work and results of the conference can be unofficially summarized in the form of expressing the sentiments of the majority of those in attendance, as judged by their addresses and comments, the following conclusions should be cited:

1. The early establishment of ample freight, mail, and passenger steamship facilities between the principal ports of the Atlantic, Gulf, and Pacific ports of the United States and the corresponding ports of Latin America.

2. Through reciprocity and mutual cooperation in trading methods and regulations, in business ethics, and in general treatment of commercial relations, including export and import combinations and other governmental aids to commerce.

3. The meeting by the financial and business interests of the United States of the legitimate financial needs of Latin American Governments and private undertakings.

4. Safeguarding of patents, trade-marks, and copyrights of each country in all the other 20 countries through the present international bureau at Habana and the early opening of one in Rio de Janeiro.

5. Making the parcel post beneficial alike to the exporters of the United States and the consumers of Latin America through the removal of unnecessary restrictions and regulations.

6. Improvement in the administration of consular offices; developing similarity of consular invoices and fees; annulling of petty laws and regulations annoying to trade and travel; the revising and permanency of tariffs; better conditions of insurance and packing.

7. Extensive railway and highway construction all over Latin America; the renewing of railways already in existence but suffering from lack of supplies due to war conditions; the establishment, as soon as feasible, of fast aviation mail, express, and passenger service; and the building immediately of a chain of good hotels in the principal Latin American ports and capitals.

8. Better credit facilities for Latin American buyers by United States exporters; the extension of United States banking connections; and more intimate study of actual Latin American trade and social conditions by the export, import, and financial interests of the United States.

9. Study of the Spanish and Portuguese languages, Latin American institutions, history and geography by the people of the United States, and a corresponding study of the United States by the people of Latin America; general vocational training for Pan American trade.

10. The further improvement and extension of news and cable service; the employment of the best methods in newspaper and magazine advertising, catalogues, business films, and other agencies of commercial publicity and intelligence.

11. Holding of the Second Pan American Financial Conference at Washington in January, 1920, called by invitation of the Secretary of the Treasury of the United States and attended by the Latin American ministers of finance and their associates.

12. Important far-reaching announcements affecting Pan American relations, including (a) that of Secretary of Commerce W. C. Redfield, pointing out new methods and opportunities for increasing the exchange of products between the United States and Latin America; (b) that of Chairman E. N. Hurley, of the United States Shipping Board, outlining new passenger, mail, and freight steamship service; (c) that of Assistant Secretary L. S. Rowe, of the Treasury, regarding the Second Pan American Financial

Conference in January, 1920; (*d*) that of President Charles M. Schwab, of the Bethlehem Steel Co., stating his absolute confidence in the business possibilities and integrity of the Latin American Republics; (*e*) that of President Frank A. Vanderlip, of the National City Bank of New York, that the American Republics could and should avert impending industrial catastrophe in Europe by supplying raw materials necessary for European industries; (*f*) those of Latin American ambassadors, ministers, and delegates, including Señor Beltran Mathieu, ambassador of Chile, Señor Francisco Tudela y Varela, ambassador of Peru, Señor Ignacio Calderon, minister of Bolivia, and others, sincerely welcoming closer commercial and financial relations with the United States.

In closing the director general took occasion to express in earnest terms his appreciation of the cooperation shown the Pan American Union by the officials and staff of the Departments of State and Commerce and of the aid rendered by the special assistants for the conference, John Vavasour Noel, first assistant and secretary; Prof. J. Moreno Lacalle, recording secretary; Henry L. Sweinhart, in charge of publicity; Dr. Harry Erwin Bard and Dr. J. Romero, assistants. He further emphasized the devotion and loyalty to the success of the conference that were shown by the members of the regular staff of the Pan American Union and the temporary employees engaged for the conference.

In the evening of Friday, the 6th, a reception was given by the governing board in honor of those in attendance at the conference, in the Hall of the Americas, and the Aztec Garden of the Pan American Union.



DR. EPITACIO PESSOA'S VISIT TO THE UNITED STATES

THE recent visit of Dr. Epitacio Pessoa to the United States proved to be a most interesting and pleasing event of international importance. The distinguished visitor was accompanied by his wife and daughter and the following prominent Brazilians: Senhor Pessoa de Queiroz, secretary to Dr. Pessoa; Capt. Armando Burlamaqui, naval aid to Dr. Pessoa; and Senhora Burlamaqui; Senhor Lauro Müller, jr., secretary of legation, and Senhora Müller; Senhor Mauricio Nabuco, attaché of the Brazilian foreign office; Senhor Gustavo Barroso, attaché, and Senhora Barroso; and Senhor Eugenio Catta Preta, attaché, and Senhora Catta Preta.

The party left Lisbon on the French cruiser *Jeanne d'Arc* for New York, but on June 16 the engine of the war vessel became disabled. The accident happened only a few hours after the great United States transport, the *Imperator*, had passed the cruiser, and in answer to the *Jeanne d'Arc's* wireless calls for help the former returned to take off the passengers, thereby enabling the president elect of Brazil to arrive at New York safely and on schedule time, the cruiser meanwhile being towed to the Azores by another United States transport.

The *Imperator* reached New York Friday, June 20, and the future president of Brazil and his party, who were to be the guests of the United States Government, were met at the dock by a welcoming party composed of Third Assistant Secretary of State, Breckenridge Long; Maj. Gen. J. E. Kuhn, United States Army; Rear Admiral W. B. Caperton, United States Navy; Hallett Johnson, acting chief of Division of Latin American Affairs, Department of State; G. Cornell Tarler, Secretary of Embassy, Department of State; Director General John Barrett, of the Pan American Union; Commander C. S. Baker, United States Navy; Maj. F. W. Cramer, United States Navy; Lieut. Commander W. Y. Boyd, United States Navy; and various other officials, including Senhor A. de Ipanema Moreira, chargé d'affaires of Brazil at Washington, and Senhor Sebastian Sampaio, Brazilian consul at St. Louis.

On the evening of his arrival Dr. Pessoa and his party were entertained at dinner on board the Brazilian warship *São Paulo*, anchored in New York harbor, United States officials and high officers of the United States Army and Navy being among the invited guests.



Photo by Harris & Ewing, Washington, D. C.

DR. PESSOA AT HIS TEMPORARY WASHINGTON HOME

Seated in the front row, left to right, are: Mr. Jordan Herbert Stabler, Chief of Latin-American Division, Department of State; His Excellency Dr. Epitacio Pessoa, President-elect of Brazil; Capt. Armando Burlamaqui, of the Brazilian Navy. Standing, left to right, are: Lieut. Commander Boyd, U. S. Navy; Senhor Lauro Müller, Jr., secretary of legation, of Brazil; Senhor Pessoa Queiroz, consul general on staff of the Minister of Foreign Affairs of Brazil; Senhor Eugenio Catta Preta, attaché; Senhor Gustavo Barroso, attaché.



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AFTER THE LUNCHEON.

One of the most delightful social functions in honor of the President-elect of Brazil was the luncheon given at the Annex of the Pan American Union by Senhor Alberto de Ipanema Moreira, the Chargé d'Affaires of the Brazilian Embassy at Washington. The group picture shows Dr. Pessoa (the gentleman holding a flower in his hand) and Senhora Pessoa (in the center of group, in dark dress with white lines), surrounded by their friends just before leaving the place of entertainment.

After spending the night at the Hotel Waldorf, the party left on a special train the following morning for Washington.

The reception of the distinguished visitors in the National Capital was marked by all the courtesies and honors usually paid to actual heads of nations. A salute of 21 guns was fired as the train drew into the Union Station, where acting Secretary of State Polk and other high officials of governmental departments and the Army and Navy were waiting to greet the guests of the Nation. As the party emerged from the entrance the famous Marine Band, drawn up in full uniform in front of the building, played the Brazilian national anthem. Under escort of three troops of cavalry the visitors were taken to the handsome private residence assigned to their use while in Washington, incidentally passing by the Capitol and the White House on the way. Later in the afternoon the acting Secretary of State accompanied Dr. Pessoa to the White House, where he was most cordially received by Vice President Marshall.

In the evening the Vice President of the United States gave a formal dinner and reception in the beautiful building of the Pan American Union in honor of Brazil's president elect and Senhora Pessoa. Among those invited to meet the guest of the Nation and his family, in addition to the members of his own party, were the Secretary of War and Mrs. Baker; the Secretary of the Navy and Mrs. Daniels; the Secretary of Labor and Mrs. Wilson; the acting Secretary of State and Mrs. Polk; Gen. March, Chief of Staff of the United States Army; Maj. Gen. Kuhn and Mrs. Kuhn; Rear Admiral Benson, of the United States Navy; Rear Admiral Caperton, of the United States Navy; Col. Ridly, aid to President Wilson; the chargé d'affaires of Brazil, Senhor Alberto de Ipanema Moreira; the third assistant Secretary of State and Mrs. Breckenridge Long; the assistant Secretary of the Treasury, Dr. Rowe; the assistant Secretary of the Treasury and Mrs. Leffingwell; the assistant Secretary of Commerce and Mrs. Sweet; Director General John Barrett, of the Pan American Union; and other high officials of the Government, including prominent members of the Senate and House of Representatives.

In his brief introduction of Dr. Pessoa, Vice President Marshall referred to long friendships that had existed among the nations of the new world, particularly that between this country and Brazil. The Vice President said:

Among the startling things in the memorabilia of the war was a statement in a letter written by Von Bethmann Hollweg, in 1913, in which he said force had never been able to hold what force had taken. And the history of the world proves that this is true. Babylon, Nineveh, Rome, and Berlin—all have gone down to the dust in defeat.

There is new hope now in the world for friendship and justice. There is a stronger power than the force of arms which prevails in the Western Hemisphere. Men are learning to deal fairly with their fellow men, and the world is learning a new lesson of value of honesty.



Photo by Harris & Ewing, Washington, D. C.

SENIORA PESSOA.

The charming woman who will soon be the "first lady of the land" in the great Republic of Brazil.

There has never been a stancher friendship than that which exists between the United States and Brazil. Their methods and principles of government have much in common, and their ideals of justice are identical. And I am sure that these cordial and friendly relations will be still further cemented by the presence here of the future president of that great Republic.

In offering a toast to the President of the United States and to the Vice President, Dr. Pessoa spoke in part as follows:

When I left Brazil last January as a delegate to the peace conference, without imagining that, three months later, I would be chosen by my fellow citizens to guide them in their destinies, I already wanted to come to the United States on my way home. Your great country has long attracted me. I have for many years regretted that diverse circumstances should have kept me from seeing you more closely.

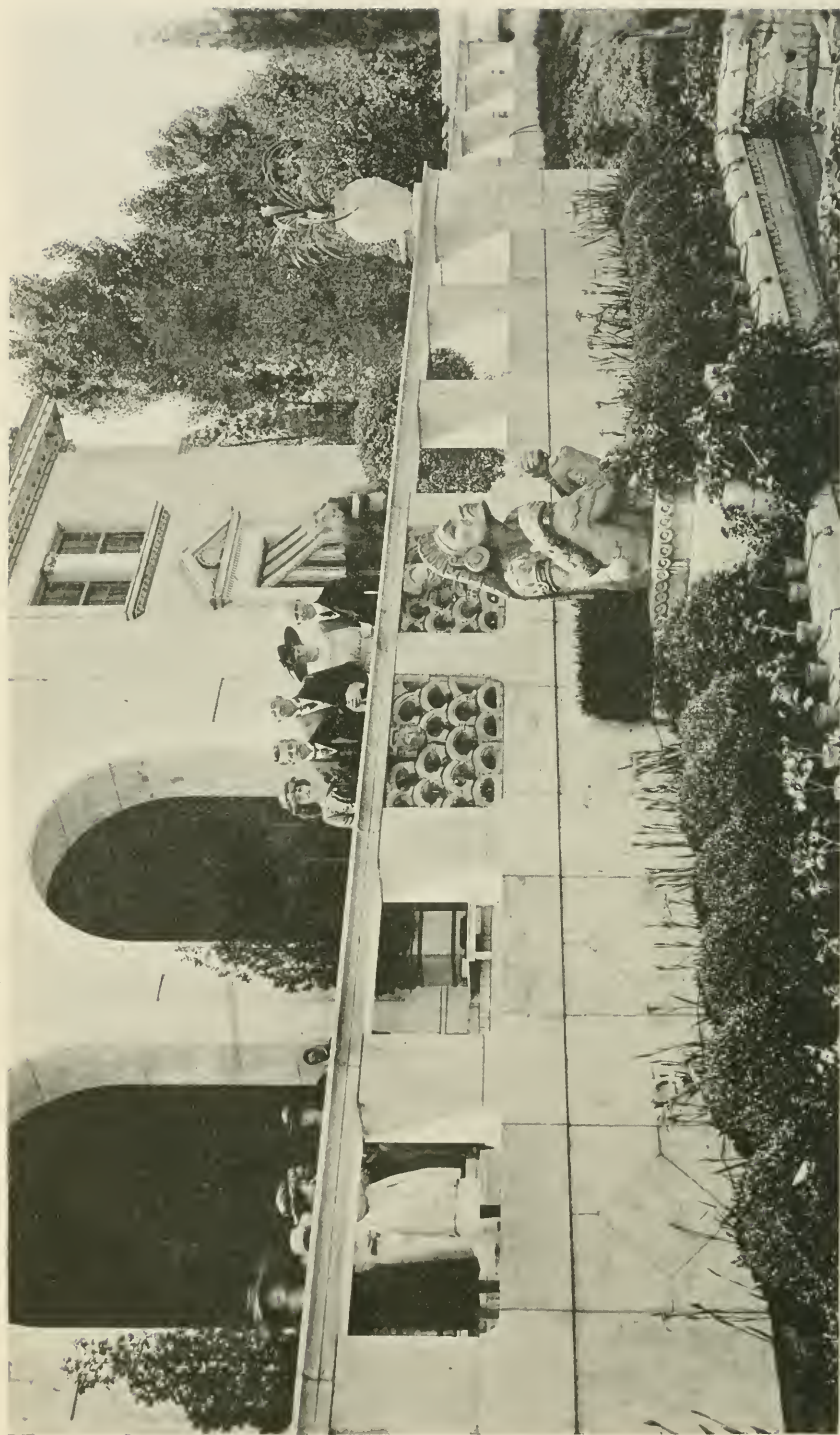
My first words must, therefore, be of thanks for the honor you did me by inviting me to visit the United States, whose traditional friendship, political organization and prodigious development hold so large a place in the heart and spirit of the Brazilian people.

I spoke of our friendship. It was, Mr. Vice President, unnecessary to do so. Brazil's friendship for your glorious country has been, from the very formation of our national ties, a fact concentrated by international history, recognized and heralded in every continent. It resulted from moral, intellectual, and political ties; from identical feelings of dignity and independence, which are a characteristic of our two peoples; from the same tendencies in the advancement of law and other domains of intelligence; from the same ideals of liberty and justice in our home life, and the same elevation of mind and disinterest in our international relations. It was fortified by our admiration for the grand task of your expansion in every branch of human activity; by your marvelous powers of conception, organization, and execution; by your energy; by your daring genius; by the physical and moral formation of your race, so flexible, so vigorous, so rich in noble aspirations, so full of philosophy and practical sense.

It was illuminated by the irradiation of your schools and your universities; of your admirable Constitution, which we took as the foundation of our political system, and which glorifies, if I may use Lincoln's word, "A government of the people, for the people, by the people, responsible to the people;" in short, of your powerful democracy, enlightened and disciplined, which, from Washington, "the first in war, the first in peace and the first in the hearts of his countrymen," to Wilson, the incomparable apostle of the league of nations, has always aimed toward good, for right and liberty. It increased, finally, with the confidence you were able to inspire in the Brazilian people, in the solidarity you always showed them for the defense of their rights and legitimate interests, in every phase of their history.

Even now, Mr. Vice President, at the peace conference, that support, constant, opportune, firm, and loyal, made itself felt, and I am glad to proclaim it on this occasion, and to affirm that my country is fully aware of its extension, which will remain vivid in her memory. I am glad to express here publicly my thanks for the many proofs of sympathy and solidarity which I received in Paris from President Wilson, the chief, full of authority and foresight, to whom, in good fortune, you intrusted your destinies at the moment of the tremendous convulsion which has just shaken the world; the great statesman whose indefectible attachment to his principles saved the conquests of right and civilization, and prepared for mankind a future of honor, of peace, of activity, and of wealth.

Having in mind the close relations which have always existed between our two countries, it is not surprising that the entrance of the United States in the great European conflict should have had a decisive influence on Brazil's procedure. To the precious title of friend, uniting our destinies, and claiming our share of effort and sacrifice, we



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AT THE PAN AMERICAN ANNEX.

In the group in the center of the picture are, reading from left to right: Senhora Pessoa, Dr. Pessoa, Director General John Barrett, Mrs. Polk, and Acting Secretary of State Polk.

added that of ally—allied to that nation which has just furnished to history the most brilliant examples of ability and force.

Now that the monstrous scourge has disappeared from the face of the civilized world, and that nations, impelled by accumulated energy in the making up of lost time, are to resume their old life of peace and toil, Brazil will rejoice in continuing to develop more and more the relations of every kind which bind her to the United States, and to strive for this end will be one of the fondest endeavors of my Government.

I have the honor to raise my glass to the personal welfare of the President of the United States, to your own, Mr. Vice President, and to the grandeur, prosperity, and glory of the United States of America.

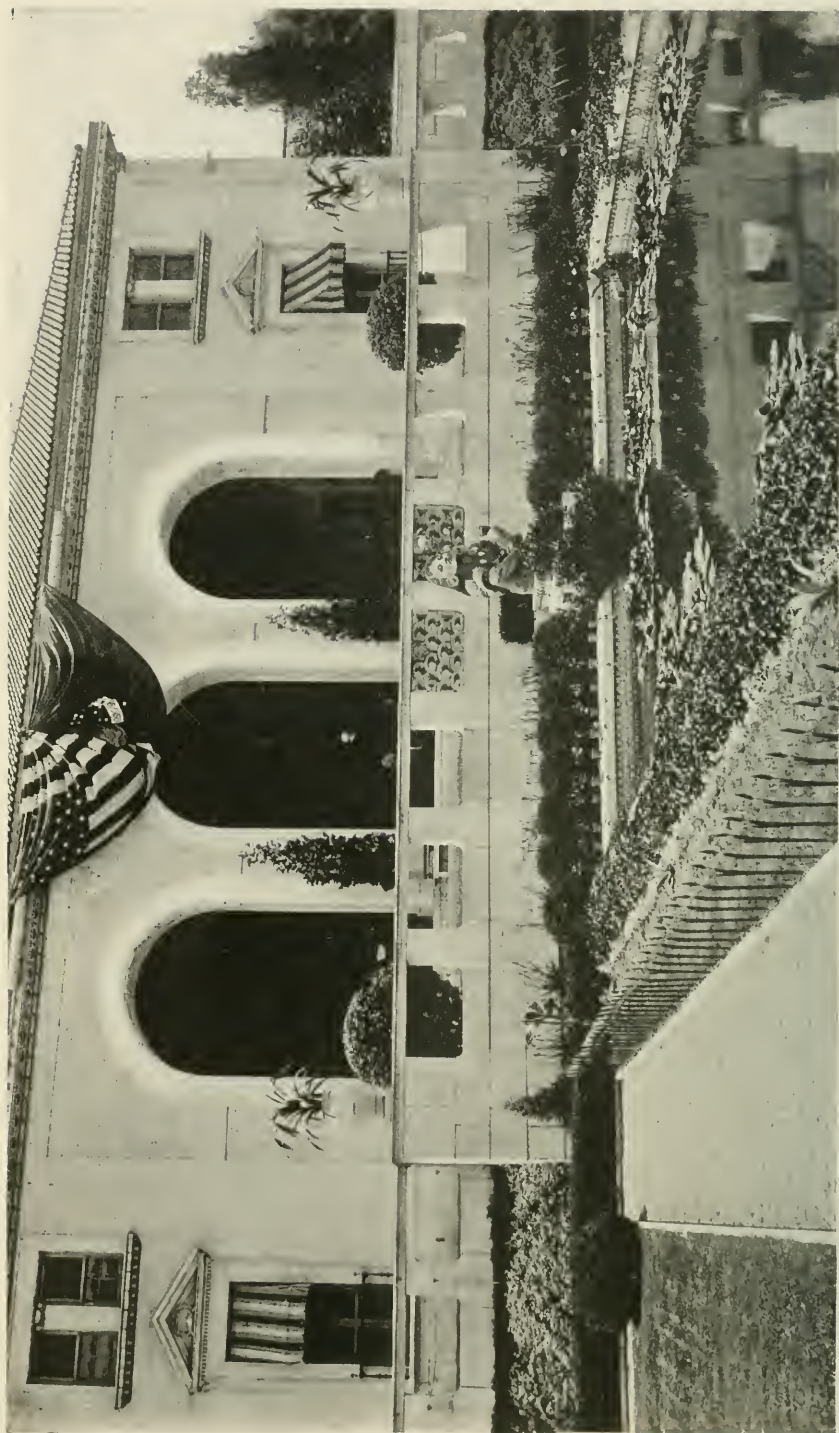
On Sunday, June 22, the Secretary of the Navy and Mrs. Daniels gave a luncheon on board the presidential yacht, the *Mayflower*, in honor of the President elect of Brazil and Senhora Pessoa. Among the guests asked to meet them were the Vice President of the United States and Mrs. Marshall; the Secretary of the Treasury and Mrs. Glass; the Secretary of War and Mrs. Baker; the Attorney General and Mrs. Palmer; the Postmaster General and Mrs. Burleson; the Secretary of the Interior and Mrs. Lane; the Secretary of Agriculture and Mrs. Houston; the Secretary of Commerce and Mrs. Redfield; the Secretary of Labor and Mrs. Wilson; the Speaker of the House of Representatives and Mrs. Gillett; the chargé d'affaires of Brazil, Senhor Alberto de Ipanema Moreira; leading members of the United States Senate and House of Representatives; the highest officers of the Army and Navy; and many of the officials of the governmental departments.

The entire party made the trip to Mount Vernon, the home of George Washington, in the yacht. There, upon arriving at the tomb of the great patriot, Senhorita Pessoa, daughter of the president elect, placed thereon a wreath of laurel and flowers. In his brief remarks in reply to the welcome extended by the governor of Virginia, Dr. Pessoa said:

I can not but be greatly moved on nearing this monument. As a general, Washington founded, and as a statesman consolidated, the most beautiful democratic structure of the world. The spirit of his achievement illuminated the blessed haloes, the aspirations of all the peoples of America. Washington is not only the "first in the hearts of his countrymen," he is also the first in the hearts of all those who love liberty and democracy.

Returning to Washington from Mount Vernon, the distinguished visitors were taken to various points of interest in the city and were then permitted a needed rest in the evening preparatory for the remainder of their brief stay.

Monday at noon the Brazilian chargé d'affaires, Senhor Alberto de Ipanema Moreira, gave an elaborate luncheon in honor of Dr. Pessoa and his party. It was served in the annex of the Pan American Union, immediately to the rear of the artistic Aztec garden which is the chief feature of the grounds of this unique international structure. The invited guests in addition to the special guests of the occasion were high officials of the Department of State; of the Army and Navy;



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THE PAN AMERICAN ANNEX.

A partial view of the Pan American Annex, showing the replica of the famous "Sad Indian" at the head of the artificial lake which forms one of the artistic features of the grounds of the Pan American Union, and directly behind the figure the two panels of the jade fence which were set in place in honor of Dr. Pessoa's visit.

the members of the staff of the Brazilian embassy; the Director General of the Pan American Union; and other prominent officials. Upon the conclusion of the luncheon the president elect was escorted to the Capitol, where both the Senate and House of Representatives took a recess and gave a hearty welcome to the future head of the great Republic of Brazil.

At 6.30 p. m. Dr. Pessoa had returned to his temporary home and there formally received all the members of the Latin American diplomatic corps who were in Washington at the time. In the evening he and his party were the guests of honor at a large dinner tendered them by Secretary of the Treasury Carter Glass, upon which occasion Dr. Pessoa delivered another of his tactful and impressive addresses.

On Tuesday the visitors were the guests of honor at a luncheon given by Secretary of Commerce Redfield at one of the leading hotels of the city. In the evening acting Secretary of State Polk and Mrs. Polk gave a dinner in honor of Dr. Pessoa and Senhora Pessoa; Senhorita Pessoa, Senhor Pessoa de Quieroz, and Senhor and Senhora Burlamaqui, of the party of the president elect, being among the other guests. This was one of the most elaborate functions given in honor of the visitors, among the distinguished guests invited being the Secretary of the Navy and Mrs. Daniels; the Secretary of Commerce and Mrs. Redfield; the Secretary of the Interior and Mrs. Lane; the United States Ambassador to Mexico and Mrs. Fletcher; the Speaker of the House of Representatives and Mrs. Gillett; the chargé d'affaires of Brazil; officials of the United States Department of State; members of the United States Senate and House of Representatives; and others. In the meantime other members of the Brazilian party were entertained at dinner by the Third Assistant Secretary of State and Mrs. Breckenridge Long, other high officials of the Army and Navy and prominent social leaders being among the guests invited to meet them. After the dinners both parties attended the brilliant reception and ball in the Pan American Union, which closed the series of entertainments for the Nation's guests in the capital.

On the morning of the 25th Dr. Pessoa and his party, accompanied by Assistant Secretary of State Long and other officials of the Department of State and of the Pan American Union, left Washington for New York. There they were entertained at an elaborate dinner by Mayor Hylan and at luncheon by the Pan American Society of the United States. On Friday the party proceeded to Niagara Falls, Dr. Pessoa and several of the party proceeding to Ottawa, where they were the guests of the governor general for a day. The entire party then returned to New York, thence to Boston, to be the guests of the city for a brief stay, returning to New York to embark on the United States dreadnaught, the *Idaho*, which is to take them to Rio de Janeiro.

INTERIOR CITIES OF BRAZIL¹

A LITTLE north of the Temperate Zone, covering a large area crossed by the São Francisco River, and without any seacoast, lies the populous Brazilian State of Minas Geraes, a State of unlimited natural wealth, whose mines filled the Portuguese Treasury in colonial times with gold and precious stones. This former wilderness is to-day a progressive State, affording its inhabitants a quiet and peaceful life in the development of its great mineral wealth and its agricultural possibilities.

The State of Minas may be called the roof of that wonderful "Land of Vera Cruz," now known as the Republic of Brazil, for it is a vast plateau where may be found the sources of many streams and rivers that find their way to the sea. The orography of this section is most interesting, and the diversity of scenery lends a special charm to the entire region.

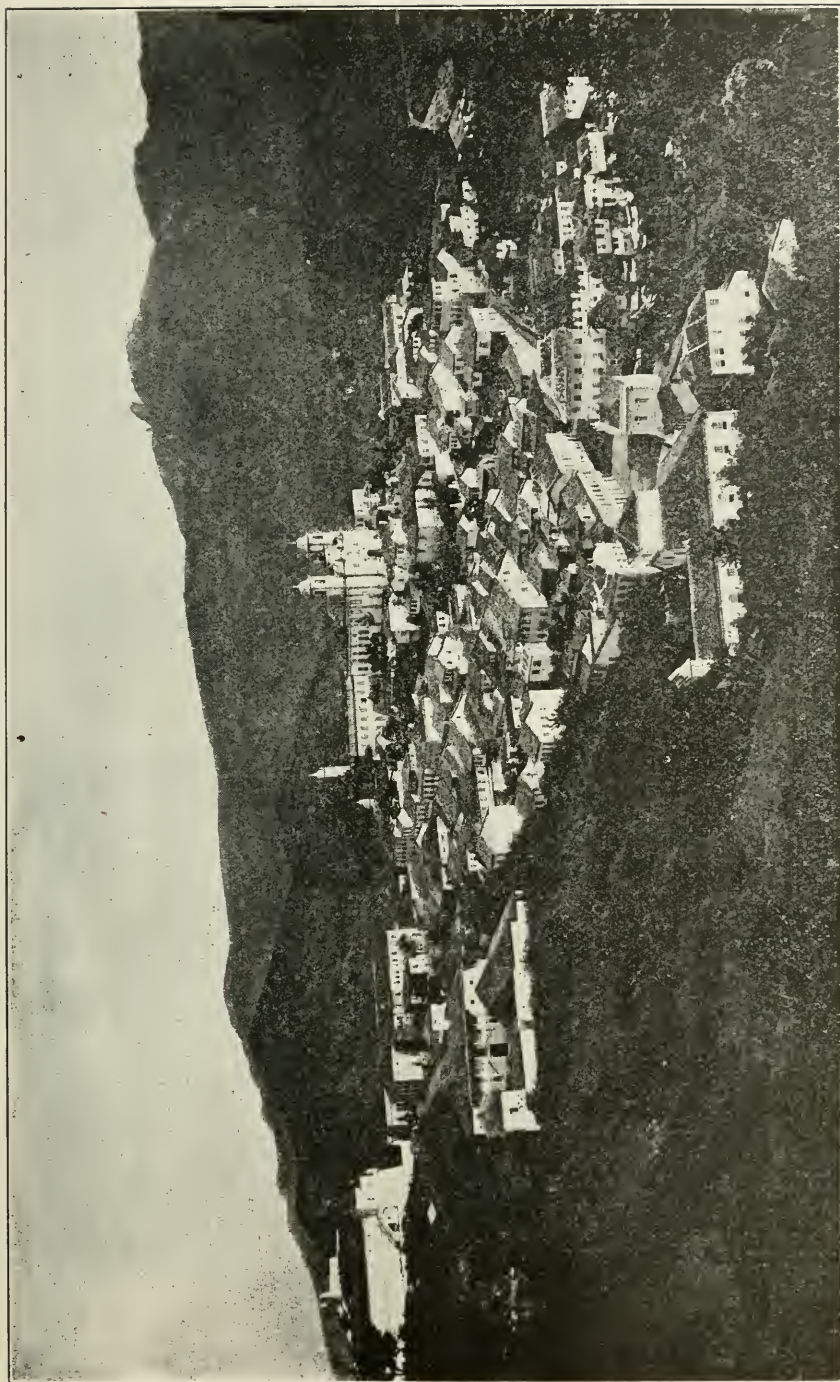
Until 1720 the territory of the State formed a part of what was once known as the Captaincy of São Vicente, later becoming the Captaincy of São Paulo, with its capital of the same name. The valuable mines discovered in this region by the "bandeirantes" of São Paulo involved the original pioneers in bloody battles with these bold intruders, who came there to exploit the metals and precious stones that had already been discovered by the early settlers; but this internal warfare soon ceased and the former Captaincy of São Paulo was divided into several separate political units.

BELLO HORIZONTE.

The trip from Rio de Janeiro to Bello Horizonte is most enjoyable. At first the train traverses a level section of the country, but soon the scenery changes and the railway clings to mountain sides as it gradually ascends to the higher level, affording delightful views of the most varied character.

Bello Horizonte, the capital of the State of Minas, is a model city which may be said to have been built to order. In its building the mineiro (as they call the citizens of the State of Minas), throwing off his old-fashioned calm and ease, outdid even the North American in enterprise and "hustle." The democratic government of Minas left its cradle, covered with traditions and coats of arms, and settled down quietly in its "made-to-order" city, where the population could expand under the most favorable auspices. Ouro Preto, the

¹ By J. de Siqueira Coutinho, of Pan American Union Staff.



OURO PRETO, FORMER CAPITAL OF MINAS GERAES.

The city of Ouro Preto is one of the most interesting of Brazil. It still retains the aspect of the old towns of northern Portugal, and its name is linked with many of the historical events of the early days of the Brazilian nation.



SCENERY IN THE GOLD BELT OF BRAZIL, MINAS GERAES.



DIAMOND SECTIONS OF MINAS GERAES.

The State of Minas Geraes is very rich in minerals, and a great amount of precious stones and metals were sent from it during colonial days to the Portuguese crown. In this picture is shown one of the rivers where many diamonds were found.

old capital, was left as the guardian of its cherished traditions, and in the course of time may become the "Holy City" of Brazil, for many great national events occurred within its confines. It was there that the first real revolution was planned, the first blow for political freedom struck, resulting in the capture and execution of the famous hero, Silva Xavier, better known as "Tiradentes."

The city of Bello Horizonte is ideally located, at an altitude of nearly 3,000 feet, with a pure, clear atmosphere and delightful climate. The Government buildings cluster about the Praça da Liberdade, a splendid square. The streets are wide and well kept, the gardens and parks exquisite in their tropical beauty. Among the finest of the streets may be noted Affonso Penna Avenue and the avenues named in honor of João Pinheiro and Pedro Alvares Cabral. The various educational institutions are housed in excellent buildings and are equipped with modern appliances. Public utilities are all under municipal ownership and control, and the services are excellent and moderate in cost. Among the places of amusement the municipal theater is an attractive structure. Hospitals and other charitable institutions are also well housed and well equipped.

The State has unlimited resources both in minerals and in agriculture. During the colonial period its mines are said to have yielded nearly 500 tons of gold, and it is estimated that about 200 tons have been mined since the establishment of Brazilian independence. The agricultural products of the State, as well as its dairy products, are important and form the chief food supply of the national capital—Rio de Janeiro.

During the recent European war the State of Minas was thrown largely on its own resources in the way of industrial products, and as a result quite a number of different kinds of factories were established, forecasting a promising industrial future.

Since even early colonial times Minas has played an important rôle in the intellectual and artistic life of Brazil, incidentally the first school of Brazilian poetry having its origin in that State, and some of the country's most prominent leaders in public life having been born there.

SÃO PAULO.

Proceeding from the State of Minas Geraes by rail to São Paulo, the train winds its way along the Parahyba River, the Mantiqueira Mountains being in plain view. As the city of São Paulo is neared the country changes into a flat plain, in the midst of which is located the metropolis of southern Brazil, the third city in point of population in South America, and one of the greatest centers of civilization of the Latin race.

The city covers a large area and its appearance is modern and imposing. The atmosphere is not as light as that of Bello Horizonte,



THE PINES OF PARANÁ STATE.

In the south of Brazil the *araucaria brasiliensis* takes the place of the palm in the north. To-day these forests are under exploitation, and it is possible that with modern shipping facilities the Brazilian pine may be exported to Europe for reconstruction work.



SETTLERS' HOUSES IN PARANÁ STATE.

Most of the European immigrants build their own homes upon reaching the interior. The one seen in the picture is a typical house of southern Brazil.



LAW SCHOOL, BELLO HORIZONTE.



DEPARTMENT OF THE TREASURY, BELLO HORIZONTE.

and one feels instantly that he is in a place where manners are more formal, although life seems agreeable.

In reality the people are very busy and life intense. The center of the city is a veritable human ant hill, where every one moves quickly, but with care and in order. The streets of the city are kept exceptionally clean. Every visitor to São Paulo is impressed with the orderliness of even the busiest quarters. The city is built on undulating ground and from various points of elevation charming panoramic views are to be had.

The "Paulista," the intellectual heir of the "bandeirante," with his spirit of enterprise and capacity for work, has been able to accumulate in his capital the very best of everything found in other countries.

The first feature to impress the new arrival in São Paulo is the splendid new railway station known as "Luz." Then as he crosses the bridge which connects two of the small plateaus of the city he will be struck with the beauty of the view of the valley below, while on his left rises the majestic building of the Municipal Theater, one of the handsomest structures of its kind in the world. Proceeding to the business section by the Rua 15 de Novembro, he will see the Government Palace and various fine buildings which house the different Government departments. Facing another plaza is, under erection, one of the most beautiful cathedrals of South America, the Cathedral of St. Paul. Not far from the plaza is another handsome square where is located the famous College of Law of São Paulo, occupying what was formerly a convent. In front of the college is the statue of José Bonifacio, the great jurist. On the left side of the square is the commercial school Alvares Penteado, an excellent institution of its kind. Going through Rua de São Bento and turning to the left, one is soon on Rua Libero Badaró, on which are located two of the handsomest structures of the city, one being the City Hall, from the terrace of which may be seen the great Theatro Municipal, alluded to above.

In front of the railway station (the "Estação da Luz") is one of the prettiest parks of the city, the Jardim da Luz. Near by is the School of Arts and Crafts, and the Fine Arts Gallery, containing a fine collection of paintings. In the former institution Dr. Ricardo Severo has accomplished great things in the way of training the younger generation in the decorative arts.

Not far away is the Polytechnic School, one of the best engineering schools in the country. In another part of the city, fronting the Praça da Republica, is the Normal School; while in every section are to be found excellent secondary schools and handsome structures erected for the primary institutions. The Avenida Paulista is the fashionable residence street, with its famous "Trianon" and palatial homes, being considered one of the handsomest thoroughfares in South America.



THE EXECUTIVE MANSION, BELLO HORIZONTE.



DEPARTMENT OF THE INTERIOR, BELLO HORIZONTE.

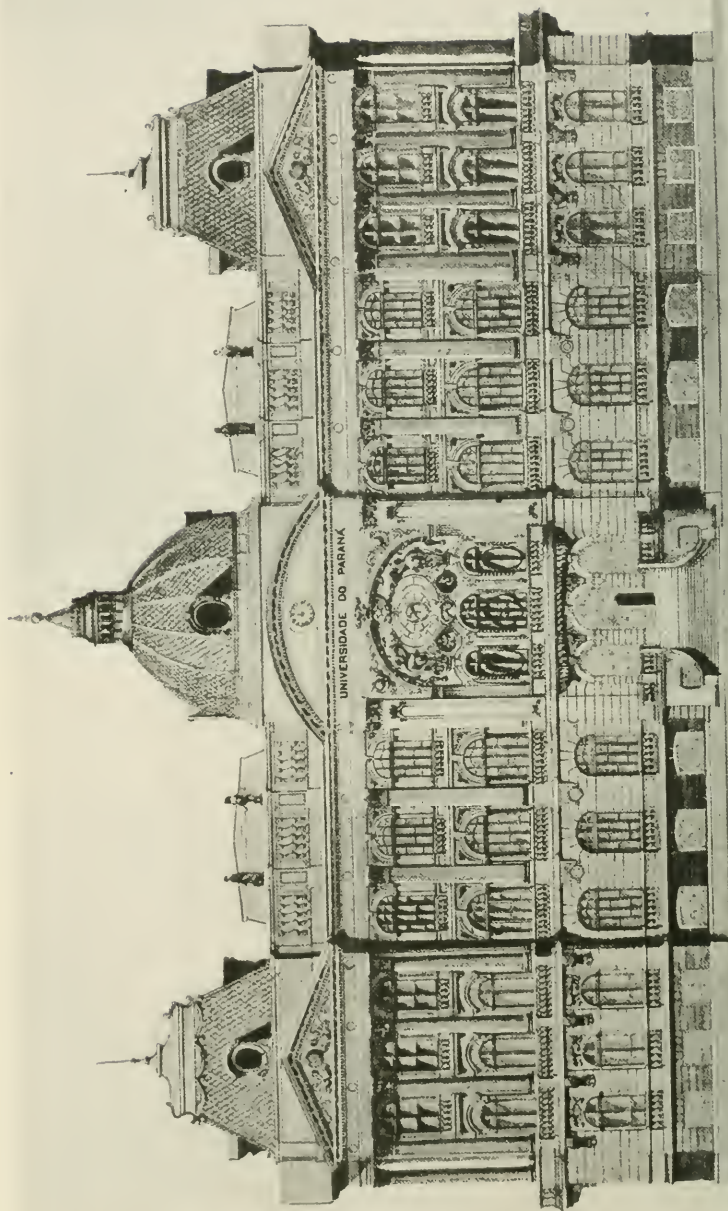


Photo by Illustração Brasileira.

PLAN OF THE NEW BUILDING OF THE UNIVERSITY OF PARANÁ, CURITIBA.

In the outskirts of the city are two notable institutions—viz, the Monumento de Ipyranga and the Butantan Institute. The former is an imposing building erected on the spot where Prince Dom Pedro proclaimed the independence of Brazil. In the building are kept many historical relics and also a very fine collection of natural history specimens. The Butantan Institute, the only scientific institution of its kind in the world, possesses a collection of snakes which it uses in experimenting with snake poisoning. The director, Dr. Victor Brazil, is the greatest living authority on the subject. This institute ranks in importance with the Instituto Oswaldo Cruz at Manguinhos, Rio de Janeiro, where also modern principles of medical science are applied.

São Paulo has a number of well-kept parks, and the private grounds of wealthy residents are a delight. The city has grown rapidly from a population of 240,000 20 years ago to 340,000 in 1900, and over 500,000 to-day. At the same time it has become a center of culture, in which arts, science, and letters are held in high esteem. Several carefully edited papers and magazines are published in São Paulo, "O Estado de São Paulo" having the largest circulation of any newspaper in Brazil.

São Paulo has not so many natural beauties as some other Brazilian cities, but its citizens have succeeded in embellishing it to a creditable extent, and it may well pride itself upon the character of the scientists and statesmen it has produced. The College of Law of São Paulo is the alma mater of many of the leading men of the country.

Agriculture is taught and carried on scientifically, coffee cultivation representing the greatest wealth of Brazil. Manufacturing is developing rapidly, the output having increased 400 per cent since the opening of the war. Exhibitions held at the Palace of Industry of São Paulo demonstrate the progress accomplished in the State in recent years.

São Paulo played a leading rôle in the historical evolution of Brazil. At the time it formed a part of the Captaincy of São Vicente, granted by Dom João III to Martim Affonso de Souza. It had a coast line of 100 leagues, but its area was enlarged through expeditions conducted by the adventurers, so that at the opening of the eighteenth century it comprised nearly one-half of all Brazil. In those times the territory, which to-day forms the States of Minas Geraes, Goyaz, Matto Grosso, Paraná, Santa Catharina, and Rio Grande do Sul, were included within its boundaries. In 1720 the creation of the Province of Matto Grosso took some of its land from São Paulo; afterwards Matto Grosso and Goyaz were organized under separate governments, and in 1853 the Province of Paraná was formed, leaving São Paulo an area only one-fifteenth as great as that of the former Captaincy of São Vicente at its period of greatest area.

The city of São Paulo is said to have been founded on January 25, 1554, the anniversary of the conversion of St. Paul, on which day



PANORAMIC VIEW OF CURITIBA.

The city of Curitiba is the capital of the State of Paraná, the State of mate and araucaria. The city is very pleasant and healthful.



GENERAL CARNEIRO STREET, SÃO PAULO.

Rua General Carneiro crosses Rua Fifteenth of November near the Government buildings. In the heart of the city one may enjoy a wide view of the surrounding country by pausing a few moments at the corner of the busy intersection of Fifteenth of November and General Carneiro Streets.

the Jesuits established their humble quarters at Piratininga. The college founded in São Vicente was subsequently removed to the village which grew up here. Later settlers from Santo André came, but the community was finally disbanded. In 1681 the Marquis of Cascaes, the grantee of the captaincy, transferred the seat of government to São Paulo, and in 1711 the name was officially changed to São Paulo. Since then the city has grown steadily in wealth and influence, favored by its geographical situation and temperate climate.

São Paulo holds a commanding position intellectually and commercially among Brazilian cities, and politically is the center of the south. In 1640 the war cry of independence rang out in São Paulo for the first time on the Western Hemisphere, and the declaration of Brazilian independence was proclaimed in São Paulo by the Prince Regent Dom Pedro, on the Ypiranga hill.

CURITIBA.

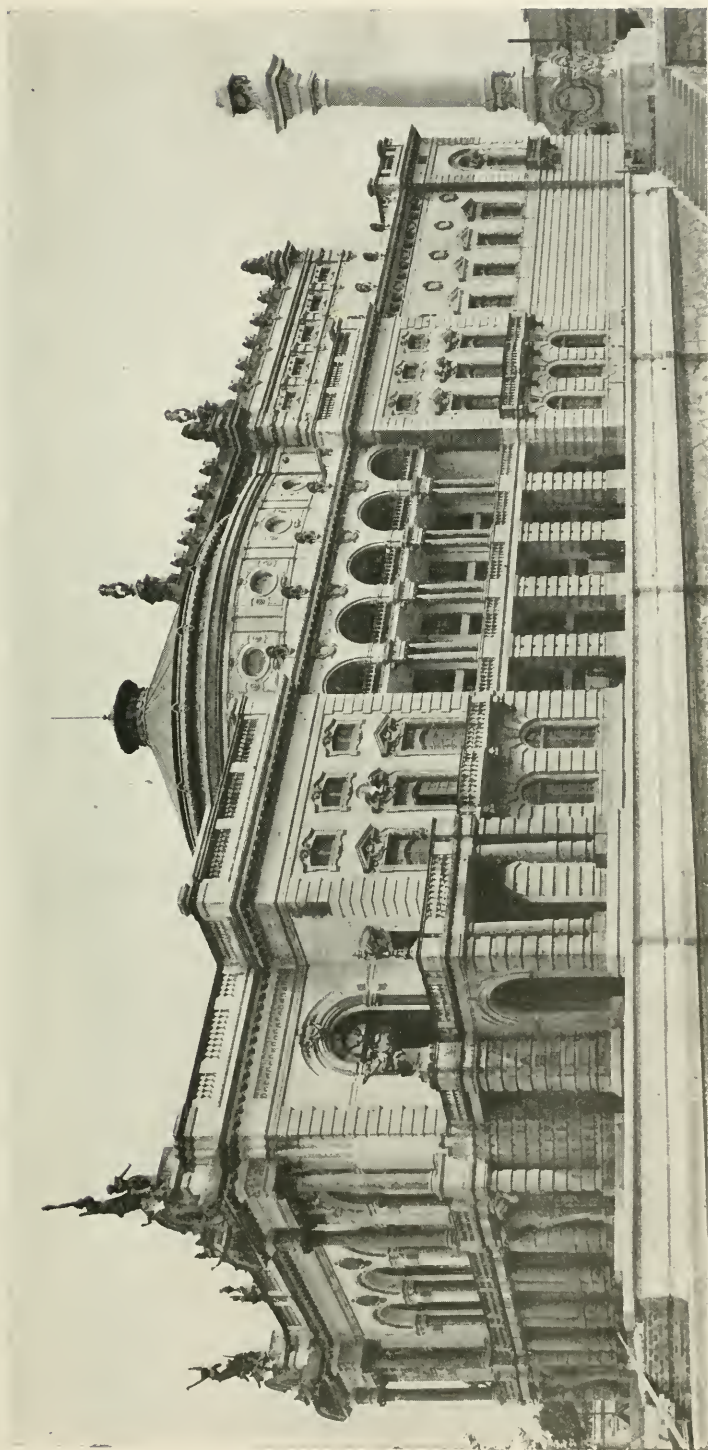
Leaving São Paulo we penetrated southward into the region in which the "bandeirantes" hunted for gold, traveling for hours through the forest before reaching the State of Paraná. Curitiba, the capital, a city of 65,000 inhabitants, lacks the formality of a large city and has in turn the interesting and pleasing appearance of a new town in an agricultural section. The air here is clear and balmy, the streets wide and scrupulously clean, and the people kindly and simple. As a commercial center it is the greatest entrepot of mate (Paraguayan tea). Attention has been devoted to industries, and to-day the entire State is of importance industrially.

Curitiba offers all modern conveniences and comforts to travelers in its hotels, electric light, street-car, and telephone systems. This city, which but a few decades ago was a small town, because of the opening of the Paranagua Railroad and the increase of mate exportation has increased rapidly in population. The climate is an added attraction, as proved by a mortality rate of only 14 per thousand. It has a number of handsome buildings, mostly to house State government offices and the schools. Parks and plazas are attractive.

Education is carefully supervised by the Government, and several departments of the University of Paraná, recently founded, are already in successful operation.

The cities cited in the above brief sketch are the three most prominent in the interior of Brazil. In the southern part of the Republic methods of communication are swifter and more satisfactory. A good railway system traverses the country and encourages settling on the table-lands of the interior, whereas in the north the rivers are the most satisfactory highways. In the south life is more varied and the population more stable.

The interior of Brazil possesses also its glorious traditions. It was there that the heroic pioneers inspired bands of adventurers who



THE MUNICIPAL THEATER, SÃO PAULO.

The Municipal Theater of São Paulo is one of the most beautiful playhouses in the world. Its interior is richly decorated. The greatest stars always sing in this opera house on their South American tours.



THE YPIRANGA MUSEUM, SÃO PAULO.

The Ypiranga Museum stands on a commanding site, its entrance stairway on the precise spot where Prince Dom Pedro stood when he proclaimed the independence of Brazil on September 7, 1822. This building houses a very fine collection of historical relics and a fine museum of natural history.

traversed the country as far as the Paraná River and the Andes on the west and the Amazon plateau on the north, in search of gold, diamonds, mines, and slave labor, not realizing that the most valuable heritage they would bequeath as a result of their explorations was the territory itself. No nation in the world can boast prouder forbears than Brazil, whose energetic, gallant, daring pioneers founded one of the largest countries in area on the face of the globe.

The Brazil of to-day forms a compact nation of uniformly firm character, and deep-rooted common traditions, capable of assimilating the different ethnic groups, however divergent in character, that may enter.

In a moment of discouragement the Brazilian need but open at random the history of his country, and find on any page the elixir which will arm him with strength to overcome any passing circumstance.

LATIN AMERICAN TARIFFS¹

PART I.

PROSPECTIVE exporters find much difficulty in the beginning to adjust themselves to the exigencies of the foreign tariff. This is especially true of exporters in the United States.

Every American is more or less saturated with tariff argument, for tariff polemics have entered more largely into party platforms and political discussions here than elsewhere, but it is always the tariff from one point of view—protection or nonprotection. Having all his life considered the tariff as a shield to domestic industry, or, if he takes the contrary view, as a mischievous hindrance to trade and burdensome to the consumer, he easily falls into the error of believing that the economic operation of all foreign tariffs is the same as that of the United States. It would be if the conditions were always the same, but they are not. It is possible to find similarities with the United States in such countries as England, France, Germany, and perhaps two or three other European countries; but these similarities are not numerous, not even in France and Germany, where the protective idea has been embodied very largely in tariff legislation. If one were about to enter the field of exporting to France or Germany he would, if his goods were of a kind that these countries manufacture, have to consider the rate of the French or German tariff as a handicap which he must overcome in order to compete with the domestic manufacturer. He would be confronted

¹ By William C. Wells, of Pan American Union Staff.

with the condition in reverse of that with which he is familiar at home—viz, the tariff rate operating to protect domestic industry. But if his goods are of a kind not manufactured in France or Germany, and needed and demanded by Frenchmen and Germans, then the tariff rate, although it might still be a handicap, would be one of a very different kind. A rate of 50 cents a pair on shoes might exclude all foreign shoes from the French market when France manufactures shoes sufficient for its own people, and 50 cents might cover or more than cover all the foreign shoe manufacturer's profit; in which case he could not compete. But if France manufactured no shoes, and Frenchmen wanted shoes and were able to pay for them, then 50 cents additional on the price would not exclude all foreign shoes, and perhaps no considerable number of them. The handicap in one case might amount to total exclusion; in the other case, it is at the most only restrictive of volume.

This last, in general, is the status of Latin American tariffs. The rates may be high or they may be low, but they scarcely ever contain any element of protection. Latin America imports nearly all the manufactures it consumes. Even the manufactures it produces are, generally speaking, only partly manufactured in Latin America.

The rate of the Latin American tariff is ordinarily of little consequence to the exporter from the United States. Granting that a very high rate restricts the volume of trade, it is a restriction that falls on all competitors alike, for all pay the same rate. The condition would be the same in the United States if there were a duty on coffee, say, of 10 cents a pound. Less coffee, perhaps, would be used, and the coffee-producing countries of the world would suffer to the extent of the falling off in consumption; but the individual coffee exporters of Brazil, Venezuela, and Java all would be alike affected by the curtailment of consumption. A high tariff rate in its demonstrable effects, when the element of protection does not enter, is the same as restriction from any other cause producing high prices. Again and again in the United States coffee to the consumer has advanced 10 cents or fallen 10 cents a pound and there has been but little corresponding decrease or increase in importation. So in Latin America increases and decreases in tariff rates do not always react to decrease or increase imports to any large degree. In these countries as in other nonmanufacturing sections of the world the chief influence affecting volume of imports is the internal economic condition; when this condition is good imports increase, and when it is bad they decrease.

Another difficulty the prospective exporter has with Latin American tariffs is to understand just what the tariff means. He is accustomed to the *ad valorem* form of tariff, such as that of the United States for the most part is, wherein an article is dutiable at

a given percentage of its value. Nothing appears more simple than, for example, the United States rate on cotton gloves of 35 per cent ad valorem, while the Colombian rate of 2.50 pesos per kilogram, even when one is familiar with the comparative relations of pesos and dollars, kilograms and pounds, is a bit puzzling if one's mind is saturated with the idea that a tariff rate in its economic aspect is necessarily protective. Thirty-five per cent ad valorem is 35 per cent protection, but what protection is 2.50 pesos per kilo (\$1.10 per pound)? But tariffs have other economic aspects than that of protection to domestic industry. The exporter, the man who is seeking to break through the tariff wall, finds that most often it is some other aspect than protection that faces him. In Latin America it is nearly always so. Ease and certainty of application is something that all exporters desire. Latin American tariffs are ordinarily understandable without technical knowledge, which can not be said of any ad valorem tariff.

Most Americans, as has been said, understand the United States tariff in its protective aspect. They know what foreign goods are excluded or restricted from the market on account of the tariff rate; but very few Americans know anything about how the tariff rate is enforced, how goods are entered and cleared at the customhouse, what difficulties importers on one side and customs officials on the other side encounter. The Colombian rate of \$1.10 a pound on cotton gloves is understandable and calculable by anyone; but not so the United States 35 per cent ad valorem rate on gloves unless one is given the values. There is the pinch. The law says "the actual market value or wholesale price of such merchandise at the time of exportation to the United States in the principal markets of the country from which the same has been imported." At a glance one can see difficulties of determining the value of English or French cotton gloves in the principal markets of England or France, and the great fund of technical and market information needed by the appraiser. The exporter of gloves knows that to-day and as long as the law remains unchanged his goods pay \$1.10 a pound duty in Colombia; but the duty on gloves imported into the United States may change from day to day in response to the foreign market as interpreted by an appraiser several thousand miles away. It is difficult to clear goods through a United States customhouse and avoid additional, fines, and forfeitures.

If it be necessary, although, as said above, it is seldom so, to know the amount of duty payable on a given shipment of goods to a Latin American country, that amount can ordinarily be ascertained; but no exporter can ever be certain as to the amount of duty payable in the United States on goods falling in an ad valorem schedule. Under both Latin-American and the United States tariffs it is some-

times difficult in the highest degree to classify goods; that is, to determine to what particular paragraph or clause of the law given articles should be assigned. But difficulties arising from this cause, inherent in all tariffs, are much less under the Latin-American than under the United States law, because the former are less detailed and less specified than is the latter. The more minute the classification the more difficult and the greater the technical skill required in appraising. Latin-American tariff laws vary in form. No two of the 20 countries have the same schedules or classifications, nor are the bases for appraising the duties the same, yet they all (except Panama and a few specified articles in a few other countries) are reduceable to the same general type of specific tariffs. This is true even where the tariff is apparently *ad valorem*.

Under the Argentine tariff law "watches of gold, silver, gold filled, and of common metals" pay a duty of 5 per cent *ad valorem*. A law so phrased in the United States would be interpreted to mean that any watch of the kind described would pay a duty of 5 per cent on the wholesale value of the watch in the principal market of the country from which imported at the time of importation. But in Argentina the value of the watch at the place of production is not taken into account, nor is its sale value in Argentina. Its "value" for tariff purposes,—i. e., the base upon which the 5 per cent is calculated—is an arbitrary and fictitious appraisement by classes which takes into account not the cost of production or sale value, but characteristics of shape, size, ornamentation, or the like. In the appraisement schedules (*tarifa de avalúos*) watches are in four classes, gold, silver, gold filled, and those of common metals. This classification follows the tariff law above (*ley de tarifa*). Four kinds of gold, two of silver, and one each of plated and of common metals are scheduled; in all, eight varieties, each of which is given a fixed value varying from 2 pesos to 80 pesos. Every watch which comes within the provisions of the tariff law—and this is interpreted to mean every kind of timepiece which can properly be called a watch (*reloj de bolsillo*)—must be classified in one of the eight varieties, which are:

	Pesos.
Gold watches:	
Men's single or double case, chronometer or like movement.....	80
Men's single or double case.....	30
The same (women's).....	15
The same, ornamented with diamonds or pearls.....	25
Silver watches:	
Men's or women's all standard types.....	4
Of fine silver or chronometer or like movement.....	12
Gold filled.....	5
Common metals.....	2

Every solid gold case watch, men's size, pays a duty of 5 per cent on 30 pesos or 80 pesos—i. e., 1.50 pesos or 4 pesos (\$1.45 or \$3.87, with

some additional)—according to whether it be a chronometer movement or not. Solid gold watches, women's size, pay duties of 0.75 peso or 1.25 pesos (\$0.72½ or \$1.21), according to whether or not they are ornamented with diamonds or pearls; the movement is not taken into consideration. Any of the above watches, men's or women's sizes, in a gold-filled case (*plaqué ó enchapados en oro*) would pay a duty of a little less than 10 cents.

A few articles under the Argentine tariff law have no fixed appraisement, but are appraised according to invoice, if the same appears to be the true cost, otherwise at an appraisement believed to represent the real value in Argentina. With these few exceptions the Argentine tariff is entirely specific, made so by operation of the rigid appraisement schedule as shown with watches above. The tariffs of Paraguay, Uruguay, Chile, Bolivia, and Brazil are more or less similar in general form, although not similar in detail to the Argentine tariff. There is no substantial difference between the group above and the tariffs of the remaining thirteen countries (omitting Panama) since all the nineteen are constructed in accordance with the same general principal of specific appraisement.

There has been much criticism, especially since the beginning of the war, of Latin American tariff laws and the methods of applying the laws. Very little of the criticism is justified or even intelligent. It follows one of two lines of thought: First, that the laws themselves are unfair to exporters (i. e., the foreign manufacturer) or are constructed so as to give preferences to certain kinds of goods as against other kinds, or contain schedules and classifications at variance with industrial and trade usages of all the world, and that these schedules are often absurd (the Argentine watch schedule is a favorite with those who believe in the absurdity notion). Second, that the administration of the laws is capricious, unfair, not uniform, even corrupt, and that fines and forfeitures are imposed for insignificant lapses.

It is safe to say that not one criticism or complaint in twenty has come from anyone with a prior understanding of the operation of any tariff law outside the ones criticised—the United States tariff law, for example—or who has any appreciation of how any tariff law does and must affect the foreign shipper. To the exporter all tariff laws, except those of his own country, are restrictive, bothersome, apparently capriciously administered, illogical, and even absurd. He knows nothing about how the laws of his own country are administered and nothing about how these laws in the economic sense touch the foreigner, although he may have a very true appreciation of how his own laws affect the industry of his own country. His only real knowledge of the operation of tariff laws is when he first meets them as an exporter.

If he happens, first, to send his goods to Argentina or Cuba he finds much to criticise; he would find just as much if his first venture was to Spain or Italy, and if he were a Spaniard or an Italian would find more if his first venture was to the United States. One must understand that all tariff laws are in restraint of trade, necessarily so even when not so intended, but often intended to be so. Every entirely free country exercises to the fullest extent its right to construct its tariff system for the benefit of its own industry, its own commerce, or its own revenue. It matters not if the system does hit the foreigner; in fact, hitting the foreigner may be one of the purposes of the system. No country has gone farther in this last direction than the United States, and, it may be added, that no countries are freer from this purpose than the Latin American.

Latin American tariffs are primarily for raising revenue. Most Latin American governments are apt to look at the particular tariff provision from the point of how much revenue it will produce, and consequently rates are often raised or lowered in experimental attempts to arrive at the high-revenue producing mark. A secondary purpose underlying Latin-American tariffs is that which generally speaking has been the chief purpose of the United States tariff laws and revisions thereof, to protect domestic industry. But the bases for the protection of domestic industry through tariff laws do not exist in any of the Latin-American countries as in the United States. As stated above, these countries are not manufacturing countries in the sense that the United States and Western Europe are. Protection is a fact, and not solely a result of the law. The law intended to foster an industry can never become a protective law until the industry exists, and then it is protective only to the degree, in kind and quantity, to which this domestic industry is able to supply the domestic wants. Certain Latin-American countries—notably Brazil, Mexico, and Chile—have enacted tariff laws intended to be protective, but the industries have in only a few instances responded in quantity and less often in kind to the domestic demand, so that the foreign exporter may disregard the protective features of Latin American, even of Brazilian, Mexican, and Chilean, tariff laws and regard all such as being high tariff rates in a certain degree, restrictive of trade. In other words Latin-American protective laws are very apt to be not protective, although far above the revenue-producing mark.

There is no justice whatever in the criticism that Latin American systems are unjust to the foreign exporter. On the average, rates are less than the United States rates under the present law, and very much less than under the older laws. There are some exceptions to this statement; Brazilian and Venezuelan rates average higher than United States rates, and this is perhaps true of the Colombian also. It is difficult to draw an exact comparison on account of the different

classes of imports as well as the different bases of the laws, but of classes of goods that may be comparable the duties in Latin American countries, except in the three countries mentioned, are on the average less than United States duties; but they are not, even in Brazil with the highest rates, restrictive to the degree that United States laws are restrictive. Brazilian high rates do not exclude products to the extent that lower United States rates do. If the foreigner has any right to complain on the score of injustice, it is that his product is excluded or unduly restricted. As a matter of fact no foreigner—least of all an American—has any right to complain on this score. If it be a sin against international good-fellowship to devise tariff systems in aid of domestic commerce and industry, then the United States, Germany, and France have been the chief sinners, and yet nearly all the criticism of Latin American tariffs has come from these countries. There is more justice in the criticism that Latin American tariff schedules do not conform to modern industry and so are unscientific and even occasionally absurd. But so are all tariff schedules, although not all are as faulty as the Latin American. There is also justice in the criticism that Latin American customs appraisals (i. e., so much of the appraisal as concerns the classification of goods), are not uniform, and especially that officials in different ports appraise differently. Both these defects arise from the same cause, and it is a cause very difficult to remove anywhere, but especially difficult in the Latin American countries. The faulty schedules can be corrected only by tariff experts who are familiar with world industries both from the manufacturing and the commercial side, and have at the same time technical ability to construct tariff schedules in Spanish (Brazil, in Portuguese). No country is able to assemble any such group of technicians, but large industrial and commercial countries like England, Germany, France, and the United States are able to secure the next best services, and consequently we find the tariff systems of Germany, France, the United States, and the limited English lists the best constructed and most nearly responsive to industrial and commercial conditions. Most other tariffs are badly constructed, and the degree of badness in general is in proportion to remoteness from the world's great industrial centers. The industrial expert is not the product of schools and universities, but of industry itself. He comes from the factories, not from the libraries. Latin America nowhere produces such experts, and so if it needs the services of such must engage foreigners. The foreign industrial expert, unless his disinterestedness be above suspicion, is a rather dangerous adviser in the preparation of schedules.

As we have said, the rate of the tariff standing alone is not ordinarily of consequence to the exporter, but the rate in comparison with a competing article, whether in the same or in another schedule,

is very important. Take the case of watches. A watch as an ornament or as a trinket may compete in a slight degree with bracelets or finger rings and as a timepiece with clocks; so that unproportioned tariff schedules might result in increasing or diminishing the importation of watches on the one hand, or of clocks, bracelets, and rings on the other hand. But the competition is slight; for most practical purposes watches stand by themselves, so that the competition in watches is in the watch schedule alone. It is apparent that the Argentine classification given above was not devised by anyone having an understanding of modern watch manufacture. It is a retail watch dealer's classification as of a period of at least 50 years back, when the watchcase was a more or less reliable mark of the quality of the watch. The schedule does not fit in with the modern watch making and selling. It allows, for example, the importation of the very finest chronometer movement watches in filled cases at one-sixteenth the duty on the same or even inferior watches in solid gold cases, though the solid case be thin and contain less gold than the filled case. The Argentine watch schedule is very much like what a classification of horses by their saddles would be. Most Latin American schedules are antiquated and most of them were constructed from the retail dealer's standpoint with the very limited view such dealers have of industrial production. Many of the schedules are so much out of date that no attempt is made to appraise articles within the classifications. Such schedules are abandoned. Latin American tariffs might be revised so as to respond in some degree to world industry and commerce with the assistance of industrial commercial and tariff experts from Europe or the United States, but it would not be advisable to go very far in elaborating schedules. Outside of the fact that the industrial expert might be prejudiced in favor of the industrial methods of his own country, or of one industry as against a competing industry, and the danger that schedules prepared under such advice would be lopsided, is the fact that highly elaborated schedules require the same measure of expert attainments in interpretation as in framing.

Any Latin American country might secure the services of experts in manufacture to assist in framing schedules, but no Latin American country could secure a corps of industrial experts to act as appraisers. The expense would be prohibitive. The cost of administering the United States tariff law is greater than the customs duties of any Latin American country. The cost of administering a tariff law composed of schedules requiring industrial expert appraisements would be greater proportionally in Latin America than in the United States, since the appraiser would of necessity have to be a foreigner or a native trained in foreign industrial plants. Such men require more money than the home-trained industrial available in United States custom-

houses. But, disregarding costs arising from higher salaries and larger bodies of appraisers the fact is that no corps of appraisers in sufficient number could be secured by any nonmanufacturing country. Even, if desired, no Latin American country can administer an *ad valorem* tariff law unless the rates are made so low as to make negligible the danger of undervaluation, or, disregarding questions of revenue and unfair competition, it chooses to incur this danger. Turkey and China with low rates have been examples of undervaluation running riot, although the inducement to fraud was not great. Neither can any Latin American country properly and fairly administer a specific tariff with schedules requiring expert professional appraisement, except to a very limited degree. The ideal Latin American tariff law is one with specific rates, and schedules and classifications understandable alike by the nonexpert importer and the nonexpert appraiser. Such a law does not satisfy the theorist, but it is the only kind that can be fairly administered and produce the required revenue. As a matter of fact such in general is the type of all Latin American tariff laws. If the schedules and classifications could be modernized and drawn a little farther away from the retail dealer's point of view they would ordinarily need no other change or improvement. Nevertheless great care would have to be exercised in making any change. The fact that a schedule does not fit in with modern industry and is therefore to an extent absurd, is not a sufficient reason for change unless a substitute can be elaborated which, while better reflecting modern industry, is as easily and fairly administered by non-expert officials. Take the Argentine watch schedule given above. It is more or less absurd, no one can deny that, for neither the metal of the case nor the size is what gives value to the watch, and neither in theory should be the base of classification; but what is there appraisable by any, except expert watch manufacturers, that could be made the base? Would it be any improvement to discard classifications and make all watches dutiable at the same rate? The Argentine watch schedule has been purposely chosen as one of the most indefensible of all Latin American tariff schedules, and yet, while no doubt it could be improved, it would perhaps not be so easy to do so as the cocksure right-off-the-bat critic might think.



THE TRANS-ATLANTIC FLIGHTS

CHRISTOPHER COLUMBUS with his three ships cruised for 73 days after leaving Spain before he landed on Watling's Island, on the further side of the Atlantic ocean. Lieut. Commander Albert C. Read, with his flying boat, the *NC-4*, flew for only 46 hours and he covered a greater distance. Their tasks were similar, but their means of accomplishing it were vastly different. The man who might have dreamed of crossing the Atlantic ocean by an air route in Columbus's time or indeed 300 or 400 years after would have been hailed as a greater fool and dreamer than the discoverer himself. It is remarkable that almost 100 years to the very day when the first steamship (*Savannah*) set out from Savannah, Ga., to steam across the Atlantic ocean, that the *NC-1*, *NC-3*, and *NC-4*, United States naval flying boats, should start from Trepassey, Newfoundland, to attempt to fly across the same body of water. The results from the first steamboat crossing have been far beyond the dreams of any one living at that time. The results of the first crossing by a flying boat can not be stated or even imagined at this time. The next century doubtless holds in store just as remarkable developments in the airplane industry as the past century has witnessed in steam navigation and traffic.

On May 16, 1919, three United States naval seaplanes, the *NC-1*, *NC-3*, and *NC-4*, were ready to fly from Trepassey Bay, Newfoundland, to the Azores. They had previously flown from Far Rockaway, N. Y., to Halifax, Nova Scotia, a distance of 540 miles, and from Halifax to Trepassey Bay, a distance of 460 miles. The *NC-4*, piloted by Lieut. Commander Read, was forced to land because of engine trouble, at Chatham, Mass., and proceeded after several days to Newfoundland, where it again joined the *NC-1* and *NC-3*.

The naval dirigible *C-5*, commonly known as the *Blimp*, a craft 192 feet long, 43 feet wide, and 46 feet high, and containing 180,000 cubic feet of hydrogen, was also scheduled to attempt the trans-Atlantic flight, but was unfortunately torn from its moorings and lost at sea. The *Blimp* had the day before made a successful flight from Montauk Point to Newfoundland, being in the air continuously for 25 hours and 45 minutes, thereby demonstrating its practicability for a long flight.

The three flying boats, *NC-1*, *NC-3*, and *NC-4*, were waiting fully equipped for an opportunity to hop off at Trepassey Bay. Each boat



Official photograph: U. S. Naval Air Service.

TREPASSEY HARBOR, NEW FOUNDLAND.

It was from this well-sheltered bay that, on the evening of May 16, 1919, the three flying boats, NC-1, NC-3, and NC-4, left the water and started on the 1,200-mile journey to the Azores, the longest and most eventful leg in the trans-Atlantic flight.



Official photograph U. S. Naval Air Service.

"NC-4" LEAVING TREPASSEY FOR AZORES.

The NC-4, which was the luckless flying boat on the very first leg of the voyage from Rockaway to Halifax, was, curiously enough, the most fortunate on the trip to the Azores, being the only plane to fly the entire distance from Newfoundland to the mid-Atlantic archipelago.

carried a crew of five men and when loaded weighed 28,000 pounds. This load was composed of five men, 850 pounds; radio and radio-telephone, 220 pounds; food and water, signal lights, spare parts, and miscellaneous equipment, 524 pounds; oil, 750 pounds; and gasoline, 9,650 pounds. This was a load sufficient for a flight of 1,400 sea miles.

On the evening of May 16 the three boats left the water at Newfoundland and started on the 1,200-mile journey to the Azores. It was a clear moonlight night, and as 21 destroyers had been placed along the route by the United States Navy, the airplanes were in communication with the fleet all the way over. It was not long, however, before each airplane was out of sight of the other. The *NC-4*, which was the luckless flying boat on the very first leg of the voyage from Far Rockaway to Halifax was curiously enough the most fortunate on the trip to the Azores and landed at Horta at 9.20 a. m. just 15 hours and 18 minutes after starting. The *NC-1* landed at sea and sank, the crew, however, being saved; and the *NC-3* which flew out of its course, landed at Ponta Delgada, badly damaged, after having been out at sea in a storm for nearly two days.

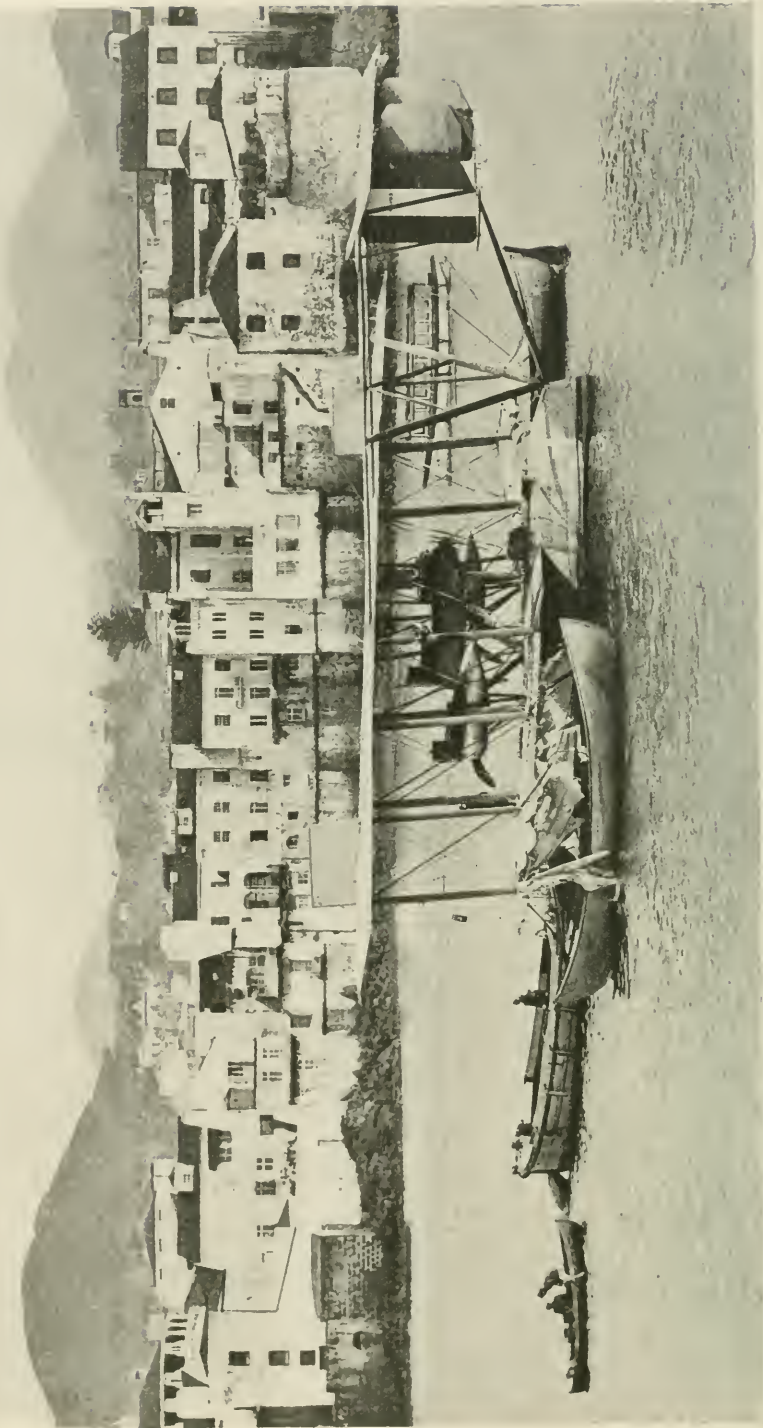
The story of the successful flight of the *NC-4* can best be told by its commander, Albert C. Read. He says:

We were flying over icebergs, with the wind astern and the sea smooth. Our average altitude was 800 feet. The *NC-4* flew ahead, but when over the first destroyer made a circle to allow the *NC-3* to catch up. We then flew on together until we lost sight of the *NC-3*, her running lights being too dim to be discerned.

From then on we proceeded as if alone. It was very dark, but the stars were showing. At 12.19 the moon began to appear, and the welcome sight made us all feel more comfortable. Each destroyer was sighted in turn, first being located by star shells, which in some cases we saw 40 miles away; then by searchlights, and finally by the ship's lights. All were brilliantly illuminated. Some were in the exact position designated, while others were miles off the line, necessitating frequent change of our course, so that we might pass near. At 5.45 we saw the first of the dawn. As it grew lighter all our worries seemed to pass. The power plant and everything else was running perfectly. The radio was working marvelously well. Messages were received from over 1,300 miles, and our radio officer sent a message to his mother in the States via Cape Race.

Sandwiches and coffee from the thermos bottles, and chocolate candy, tasted fine. I made several trips aft and held discussions with the radio man and the engineer. At 6.55 we passed over a merchant ship, and at 8 o'clock we saw our first indications of possible trouble, running through light bumps of fog. Later the fog became thicker and then dense. The sun disappeared, and we lost all sense of direction. The compass spinning indicated a steep bank, and I had visions of a possible nose dive. Then the sun appeared and the blue sky once more and we regained an even keel and put the plane on a course above the fog, flying between the fog and an upper layer of clouds. We caught occasional glimpses of the water, so we climbed to 3,200 feet, occasionally changing the course and the altitude to dodge the clouds and fog.

Suddenly at 11.27 we saw through a rift what appeared to be a tide rip on the water. Two minutes later we saw the outline of rocks. The tide rip was a line of surf along the southern end of Flores Island. It was the most welcome sight we had ever seen.



Official photograph: U. S. Naval Air Service.

"NC-3" AT PONTA DELGADA, AZORES.

The NC-3, which flew out of its course after being in the air for about 15 hours after it left Trepassey, alighted on the sea a few hundred miles from Azores, and, unable to rise again, proceeded under its own power toward Ponta Delgada, which it reached after being nearly two days in a storm.

We were 45 miles off our calculated position, indicating that the speed of the plane from the last destroyer sighted had been 85 knots. The wind was blowing us east and south. We glided near to the shore and rounded the point. Finding that the fog stopped 200 feet above the water, we shaped our course for the next destroyer, flying low, with a strong wind behind us. We sighted *No. 22* in its right place, which was the first destroyer we had seen since we passed *No. 16*. The visibility then was about 12 miles. We had plenty of gasoline and oil and decided to keep on to Ponta Delgada. Then it got thick and we missed the next destroyer, *No. 23*. The fog closed down.

We decided to keep to our course until 1.18 and then make a 90° turn to the right to pick up Fayal or Pico. Before this time, at 1.04, we sighted the northern end of Fayal, and once more felt safe. We headed for the shore, the air clearing when we neared the beach. We rounded the island and landed in a bight we had mistaken for Horta. At 1.17 we left the water and rounded the next point. Then we sighted the *Columbia* through the fog, and landed near her at 1.23. Our elapsed time was 15 hours and 18 minutes. Our average speed 81.7 knots. All personnel was in the best of condition.

The leg of the journey from Trepassey Bay to the Azores was the longest and most eventful in the trans-Atlantic flight. After a few slight repairs to the machine and a few days' wait for favorable weather, Commander Read and his crew left Ponta Delgada, Azores, for Lisbon, Portugal, making the trip of 800 miles in 9 hours and 44 minutes. On May 30 the *NC-4* left Lisbon and made the flight to Plymouth, England, with the exception of a stop at Ferrol, Spain, due to engine trouble. This last leg of the journey completed the first trans-Atlantic flight from the New World to the Old.

The crew of the *NC-3*, which flew out of its course for several miles, came down on Saturday afternoon to get their bearings, after being in the air for about 15 hours. The machine was damaged as it reached the water and was unable to rise again. The waves pounded the plane incessantly and the boat began to leak. So fast did the water enter the boat that the crew took turns in bailing out the hull and standing on the wings to keep the plane in balance. The plane under its own power, however, was able to keep afloat and to proceed toward Ponta Delgada, which it reached after two days in a storm. The *NC-1* underwent a similar experience in being lost in the fog and was forced to alight on a rough sea. The plane was buffeted by the waves, and all hands aboard realized that they were in danger of being capsized at any time. After several hours a steamer was sighted and the crew taken aboard. An effort was made to tow the seaplane, but the line parted and the machine was left behind.

THE BRITISH EFFORTS.

Vying with the United States Navy to be the first to cross the Atlantic by the air route, two British aviators, Capt. Harry Hawker with his navigator, Commander McKenzie Grieve, had been waiting at St. Johns, Newfoundland, several weeks for favorable weather to



Official photograph: U. S. Naval Air Service.

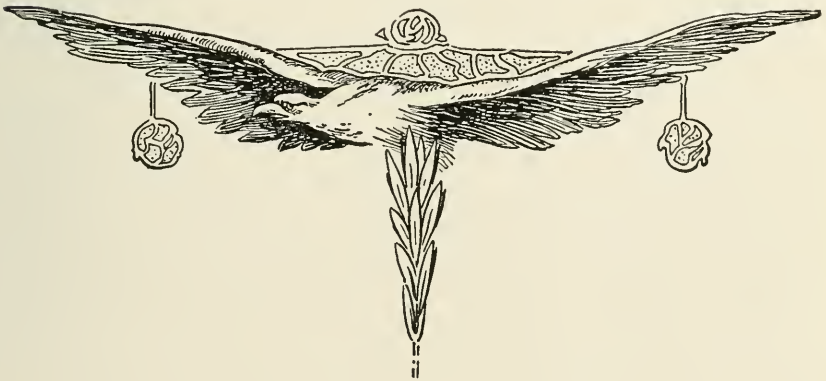
CREW OF "NC-4" AT HORTA.

From left to right: Lieut. Stone, Chief M. M. Rhodes, Lieut. Hinton, Ensign Rodd, Lieut. Breeze, Lieut. Comdr. Read. At extreme right is Admiral Jackson, Commanding the U. S. Fleet at Azores.

attempt the flight. Their object was a nonstop flight to Ireland, for which the London Daily Mail had offered a prize of \$50,000. Hawker and Grieve left New Foundland on Sunday, May 18, in a single-motored Sopwith biplane, and after 15 hours in the air were forced to alight on the ocean 1,000 miles east of where they started and 900 miles from their goal. They were picked up by a Danish steamer after a few hours on the ocean and brought into port. Because of the fact that the rescuing steamer was not equipped with wireless apparatus, the safety of the aviators was in doubt for several days, and the men were received in England with a royal welcome.

The first successful trans-Atlantic nonstop flight was accomplished on Sunday, June 15, when Capt. John Alcock and Lieut. Arthur Brown, British aviators, landed on the Irish coast 16 hours and 12 minutes after leaving New foundland. The voyage was made without accident—a straightaway flight of more than 1,900 miles. The flight was made in a Vickers-Vimy biplane equipped with two 350 horsepower Rolls-Royce motors. Fog interfered, and to escape this menace the aviators rose to a height of 11,000 feet, while at another time they were flying upside down only 10 feet above the water.

The ambitions of aviators ever since the first heavier-than-air machine rose from the earth have been realized. It is hard to grasp the significance of the fact that the same body of water that formerly took days to cross has been spanned by air machines in a few hours. Great credit and honor is due the men who have blazed an air trail over the Atlantic.



INTELLECTUAL PROGRESS IN MEXICO¹ ∴ ∴ ∴ ∴

EDUCATION based upon scientific principles was established in Mexico with the triumph of the reform movement. The men who took part in this event devoted their entire energy to the betterment of social conditions and to the tenacious struggle for liberty of conscience. These noble Jacobins, imbued with the love of right and justice, but who in their heart of hearts lacked the proper orientation, destroyed a régime notoriously lax morally only to substitute for it a generous but incomplete naturalism. They condemned scholasticism and endeavored to place in its stead a more humane system; but they did not succeed in building up other institutions to take the place of those they were bent upon destroying. At the moment in which the general state of mind was problematic an educator returned to Mexico after a protracted visit to Paris—an educator who pronounced intensely interesting generalizations based upon sound fundamentals, as was self-evident to all observers; fundamental principles capable of logical and visible demonstration. The reformers, impressed by his personality and integrity, soon became his disciples, and, with the wholeheartedness habitual in those accustomed to abnegation and self-sacrifice, renounced their dearest aspirations regardless of what had been their watchwords and standards in previous campaigns—namely, social contact, the encyclopedia, philosophical sensualism, and revolution itself—and placed secondary education throughout the country in the hands of Dr. Gabino Barreda.

Dr. Barreda was a follower of the French philosopher Comte, and hence a revolutionary, but not of the temperamental school of revolutionists who go through life continually inciting men to incessant change and reform, and thus being factors in progress to be reckoned with. The master, Comte, was such a one, dynamic as a revolutionary, yet static, ever seeking to substitute for a fixed state one equally stationary, only created by himself and systematically limited.

Barreda, indeed, brought with him a new catholicism, without cruelties and anathemas, but still fanatical and less vigorous in-

¹ As a part of its program of diffusing knowledge of the contemporary intellectual life of the American Nations the BULLETIN takes pleasure in reproducing the above English version of a lecture given recently in the historic University of San Marcos, Lima, Peru, by Don José Vascencellos, the distinguished Mexican scholar.

tellectually than the older catholicism. The new creed consisted of applying the laws and the science of the perceptible to all forms of activity; of making scientific truth, demonstrable and incontrovertible, the fraternal bond of union among all men.

He organized a model preparatory school in the City of Mexico, and the old schools in all the provinces were reorganized as scientific schools patterned after that of the capital; mathematics, physics, chemistry, natural history, and psychology were the fundamental branches of instruction, Latin and Greek were abolished, while literature and history were relegated to secondary positions in the curriculum.

The program of these schools was simply a pedagogical application of the classification of Comte's sciences, and the same subjects were required of all students, whatever the professional branch they chose to follow. Such a requirement they justified on the ground that the school did not as its principal object prepare professional, but rather cultured useful citizens. Also it was planned to eradicate the traditional systems of teaching Latin and the canons to the half-breed and Indian, but not one word was spoken concerning the physical laws through which the primitive industries of the country might be bettered; not a suggestion made of interpolating chemistry or botany in the courses, or even a system of reading which would train young people in clear, precise thinking, free from pedantry, to displace the old empirical habits.

In the strong scientific reaction there was also much impatience toward the authority of letters, the native dignity of certain high types of minds, though it might appear ridiculous and even prove injurious as a general basis of culture. At that time in official and university circles in Mexico the cultivation of the humanitarian branches was disappearing, and this evil, the consequences of which we are experiencing, though almost powerless to correct, ripened into maturity in a search for the eternal fountains of the spirit of Greece, producing, nevertheless, in its time a mental renovation of incalculably wholesome effect. The fashion of science and scholarship annulled the influence of the ignorant pseudo scholasticism of the garrulous class that drinks of the mire of all languages and rituals and discourses at length without having yet commenced to think.

Rhetorical redundancy disappeared from the classrooms, from the refectories, and even from the press. The period in which mathematicians believed themselves obliged to be first poets and then engineers, by the petty exigencies of life, also passed; also the time in which physicians learned more Latin than chemistry; to say nothing of the lawyers who always appropriated the rights of dominion over literature and science, and were stimulated by the Roman abuse of mistaking the arguments and conclusions of the casuists

and the trivial sorites which deceived the vulgar for genuine eloquence.

A science, while not entirely sound and still so near the previous period as to be influenced by it, replaced the insubstantial vulgarity. It appeared to be pedantic and trifling, but was possessed of such suggestive power that even the poets began to find inspiration in nature as seen through physics, chemistry, and psychology, and they made a servant of science as mathematics formerly served rhetoric.

Withal the transformation was purifying in result and permitted the realization of what sociologists know as a better specialization. Every one can thus devote himself to his specific vocation—the poet to his art, free from complications, and the practical man to his applied sciences without the impediment of the spiderweb of mediocre literature.

* * * * *

In spite of all in this period there flourished eminent lawyers, like Don Miguel Macedo, who employed during his professorship a logical discipline calculated to correct the digressions and the impression of the creole temperament. Macedo devoted himself not so much to the penal theories, easily found in copious and verbose Italian writers, as to rectifying minds affected by an ethnical handicap—the Iberic vice of talking and writing thoughtlessly—impelled by the rhetorical impulse or for the purpose of pursuing the sonorous effect of fixed phrases. Macedo required that every word should receive a precise connotation and that every idea should maintain its proper order and proportion in the harmonious whole of a discourse.

In the preparatory school also, owing to the educational system, to the nature of the subjects taught, and to the conscientious zeal of the majority of the teachers, the pupils learned to interest themselves through facts, to study and see them through the proper perspective, deducing the series of their antecedents by experience and in the light of consequences and results. This laborious apprenticeship was followed by an intensive study of the precise logic of the Englishman, Stuart Mill, who applies to the spiritual realm a proceeding analogous to that which the savant applies in analyzing chemical elements—the method and induction which coordinates general principles, the immediate source of specific deductions; an analysis and clarifying which leaves no crevices in which superstition may lurk, as in the visionary philosophy of Comte.

From this positive school came the original, rather dazzling sociology of Don Francisco Bulnes; the amiable, transcendental causerie of Dr. Flores; the sentimental profuseness of the orthodox positivist, Don Agustín Aragón, the fearless editor of the Utilitarian Review (*Revista Positiva*) and of the Humanitarian Rites (*Ritos de la Región de la Humanidad*); and, finally, the sound and liberal but

obscure reasoning of Porfirio Parra, author of a treatise on logic published in two volumes, of philosophical discussions, of one or two novels, of didactic articles, and of a striking ode to Mathematics ("Oda a las Matemáticas").

And in the moment in which science, as absolute mistress, all but prohibited activity in any other lines there arose a group of artists who, thinking to follow the philosophic trend of the times, in reality founded an untrammelled, personal literature, fascinating because of its significance and its intrinsic beauty. The names of the new school of literati are doubtless well known to you, beginning with Gutiérrez Nájera whose wholesome influence is still felt, and followed by Urbina, Nervo, Díaz Mirón, Valenzuela, Rebolledo, Icaza, Salazar, and Tablada, who form a part of the staff of the justly famous "Revista Moderna."

To the same group might be added the eloquent de Urueta, virtually faultless in style, gracious in form, and melodious in diction, whose compositions resemble the surcharged danunziana prose.

Manuel José Othon, perhaps our greatest poet, was reared apart from the littleness of life, and grew up isolated, provincial, and strong in faith, keen, with a clear vision, at times disconsolate, filled with the awesome grandeur of the Mexican plateau, the burthen of his song being nature, not as personified by classic bards, or nature as blinded by a science which is limited to compliance with laws and uniform rhythm, but rather nature as endowed with a conscience akin to the human, perturbed by mysterious longings, vague unrest, and fleeting illuminations—the nature which plays the leading rôle in the intense drama of Walpurgis Night, so marked in the magnificently somber "In the Desert," his latest production.

Referring to bucolic poetry I should mention the few who, in this era of extreme modernism, maintain the traditional classic culture in legends and essays. In this group may be classed Archbishop Montes de Oca, the translator of lyric and pastoral Grecian poets; Don José María Vigil, translator of *Perseus*; Don Joaquín García Icazbalceta, one of the most erudite historians of Mexico; the poet and Latinist, Don Joaquín Arcadio Pagaza; Balbino Dávalos, the cultured poet and translator of English and Greek, and Don Francisco Pascual García, the Catholic writer, a humanist of the recalcitrantly Thomistic school.

Mexican thought of this era is adequately exemplified and synthesized in a man whose influence was unequalled by his contemporaries—Justo Sierra, a poet in his youth and a sage in his maturity, to the brilliance and fire of whose soul his generation owes the earnestness and eagerness so notably present. Educated from early youth in strict Catholic faith, he was to master a great struggle within himself before fervently embracing the Jacobite apostleship

and later to gain the doctorate of laic science. He always avoided ill-considered exaggerations, and, while conserving his mental equilibrium and rejecting all dogmas, he never lost sight of his inspiration, faith, and constancy. To the Comtistic enthusiasms he opposed delicate irony and his own reasoning. In his memorable addresses he used to remind the public that science is very far from reaching incontrovertible finalities, because its very axioms are not immune from continual debate, and even supposing present conclusions to be fixed and perfect, it is nothing more nor less than discipline and the knowledge of the relative, and has nothing to do with the objects in themselves. Systems and scientific hypotheses are, like philosophies, he declared, living organisms "which are continuously changing, and which need the perennial reparation of death."

Justo Sierra, who, from Jacobite romanticism, and, still further, from traditional faith, could pass to a clear comprehension of the problems of science and totally reform his mental orientation in conformity with the resultant new convictions; who dedicated his entire energy to a professorship and subsequently to general education, as minister of state and organizer of modern culture in the Republic, also foretold the new trend of thought. In his speech at the opening of the new university in the year in which Mexico celebrated the centenary of her independence, he recognized and welcomed the new French idealism and criticism engaged in by scholars and authors of science with the purpose of assigning to materialism its just place among the methods available in research, not, however, without qualifying it as a casual growth, like that which results from all unworthy alliances.

Already positivism had undergone a transformation which, adapting it to the particular requirements of every science, made it universal in scope, yet at the same time depreciating all learning. The Spencerianism imported by Don Ezequiel Chavez was the last scholastic synthesis of the conclusions of science. The doctrine of the noumenon, unacceptable to the majority of antiphilosophical persons, popularized itself in the crude form of agnosticism defined early in the present discussion; the evolution proved by Darwin provoked obstinate formulas extracted from Spencer's treatises; the traditional utilitarianism of the British, dissembled with forms of biological and moral law, invaded even the field of Roman law with its naturalistic tendencies enunciative of the concept of justice; in psychology the principles of the persistence of force and the gradual development of forms, as well as the narrow hatred of the strides humanity had taken in learning before Bacon left the lecture halls cold and profitless,

But outside of the classrooms, in the corridors of preparatory schools, thanks to that liberty which was the final gift of the reform-

ers, other influences were at work. From discussions of the ironies and morose axioms of Schopenhauer people passed very quickly to studies of metaphysics, interest in which was revived by Schopenhauer in his commentaries on Kant, and reconsidered the problem of cognizance, in which science or, in fine, the standard of science, is one of the factors. Slowly metaphysics gained ground; criticism and pure reason became popular, and little by little the readers of Eusman and Boutroux, of Bergson, Poincaré, William James, and Wundt gained in number.

Another rebel, Nietzsche, amazed us by his scientific Philistinisms and his eloquence, borne adown the centuries to him from the soul of Greece, in his "*Geburt der Tragödie*" and his "*Also sprach Zarathustra*," placed before us the absorbing problem of aesthetics, and, while not yet recognizing the meaning of music, made us laugh again.

The fact that I know of no work that has been produced in aesthetics does not prove that the majority of modern authors feel less what they see, perceive less. Naturally Spencerianism exposed its theory of cunning and artifice as the basis of aesthetic phenomena, but this point of view was applied to certain branches only of thinking, and in others thinking was nurtured by the original doctrines of Schiller, Lessing, Winkelman, etc.

During the materialistic period Taine's intelligent criticism was dominant; later Ruskin occupied all minds; and then Oscar Wilde with his "*Intentions*," and, finally, Walter Pater became so popular that a Mexican translation was made of his works. The writings of Menéndez Pelayo and Benedetto Croce should be cited among didactic works much consulted at the time, and Hegel should not be neglected, although his philosophy never was accorded in Mexico the general acceptance given to his rival Schopenhauer.

The very promptness with which positivism declined proves one of its virtues; that is, its having engendered in every one of its converts, above all, an unconditional love of truth. In the eager search for this truth it was logical that speculative philosophy should be freely exercised again, but not without solid foundations of critical judgment. Convinced that the problem of metaphysics is eternal, but also that all metaphysics which does not recognize or which contradicts the laws of science, of which it is the legitimate outgrowth, is unacceptable, one is persuaded that philosophy is only the clarifying of the judgment through the teachings of science, after which one self-confidently realizes he has used his faculties to familiarize himself with the cognizable, and needs to imagine only that which transcends proof, as he ever struggles to discover the impossible.

You may ask me in what specific lines of endeavor the sons of Anahuac excel. I reply that, in the midst of desolation and restiveness, there flourishes a generation that has the right to call itself new,

not only in years, but more properly because it is inspired by a system of æthetics which varies widely from that of its immediate ancestors; by an ideal creed which criticism in time will properly weigh, and which is neither romantic nor yet modernistic, much less positive or realistic, except after the manner of mysticism growing out of worship of beauty, with a tendency to search for hitherto unuttered eternal facts. It is not a platonic faith in the immortality of ideas, but something entirely different; a nation of infinity and the rhythm of an eternal and divine substance. I will list certain prominent figures in the new culture, not, however, necessarily in the order of merit.

Beginning with Alfonso Reyes—Euphorion we used to call him because, like the son of Faust and the classic beauty, he combined the noblest of attributes. His guidance into new paths of æstheticism, his literary zeal, his exclusive devotion to the ideal, are evident in his books and articles.

Antonio Caso, the mental liberator, maps out new paths for the spirit to follow; he takes particular delight in mocking, accepting, and strengthening all creeds in succession, if only for the pleasure later of destroying them with clever, pointed criticism. A single sentence from him dissipates groping doubt as the bust of sun after a lightning storm. His doctrine is that of the gardener who gives water, rich earth and light to his plants, and is rewarded by seeing them blossom forth in gayly variegated profusion.

Pedro Henríquez Ureña reveals the brilliance and rhythm of his very soul, which makes him a favorite in all Spanish America, although he remains faithful to his diminutive, beloved Santo Domingo alone. He gathered about him a group of disciples and friends in Mexico, and, as was natural, his strong, positive character made some enemies as well.

Julio Torri is a profound humorist and somewhat eccentric.

Enrique González Martínez is a philosopher who is also master of the art of making the idea accord with music and meter; a true poet. His intuition attains depths in which he bares the secret hearts of men. Haughty and graceful, like the art of the Aztec goldsmiths, Moorish and also Tenoch—that is the poetry of Rafael López. Roberto Argüelles Bringas hypnotizes us with his powerful visions. Eduardo Colín, austere and noble, seeks exuberance without trespassing proportion. Joaquín Méndez Rivas, now in New York, attempts meter in which to express his high inspirations; Méndez Bolio cultivates an eloquent though rather fanciful muse. Rafael Cabrera is sentimental. There are many other writers of verse whose qualities are not well defined.

Next and very close to the poets comes Alfonso Cravioto, an exquisite prose sculptor. Jesús Acevedo, the architect, has more

talent than can be well displayed in books, but, thanks to idleness and homesickness he is now in a retreat in Madrid writing what will some day startle the world.

Martín Luis Guzmán is a clear vigorous writer who soon will stand out with unmistakable distinctness on the literary horizon. He divides his attention between politics and criticisms of painters. One of the latter, his friend and our compatriot, Diego Rivera, known also in Europe, has left the classic style of which he was master for the modern love and intimate admiration of form and volume. Another painter, Roberto Montenegro, depicts the allurements of feminine lasciviousness in the midst of mysterious shadows which subdue the sensuality. Ramos Martínez paints dainty, profound women of the Creole type, and in the valley of Mexico and in Jalisco a dozen inspired interpreters of the incomparable landscape, which is one of the greatest gifts of Mexico, tranquilly translate to canvas the subtle grandeur of the tableland.

The musical compositions which Manuel Ponce produces tend to form a Mexican school with themes taken from the folk songs of various sections of the country. Señor Ponce composes dances, rhapsodies, and even symphonies, his intense, accurate work constituting one of the most genuine expressions of Mexican character which, natively reserved and almost taciturn, seeks unreserved expression in music.

One other musician, Julián Carillo, educated, like Ponce, in Germany, and also ostracized from Mexico for political reasons, is preparing to continue the educative work of the master Meneses, who has made us in Mexico City familiar with the classic symphony and the development of modern music.

Among the younger novelists Carlos González Peña stands alone, and among various story writers Isidro Fabela, narrator of pastoral customs and loves, is notable.

Manuel de la Parra, a poet incoherent at times and always sublime, modest, retiring, aloof from pettiness; Mariano Silva and Aceves, the Latinist, whose ideals of culture and perfection are so lofty that he hardly dares write, and who, like Federico Mariscal, is devoted to the colonial architectural accomplishments, which he catalogues and treats in admirable books, are worthy of detailed study. Many other notable writers I am obliged to omit in this limited sketch.



CHILEAN CONVEYANCES-- YESTERDAY AND TO-DAY¹

THE constant evolution of progress has brought simultaneously the perfecting of the automobile and the displacement of the horse. Nowadays all large cities are invaded by the new method of locomotion, which is an essential in passing over great distances with the rapidity necessitated by modern business and society. In these times even the most conservative turn traitor to traditions and change opinions radically, as they allow themselves to be carried along in the tide of evolution. It is to be believed and devoutly hoped that we shall not again see traffic conducted by means of a filthy pack of worn animals, weighted down under their loads. The long, narrow cart drawn by dusty mules will never be revived. The horse competed successfully with it and was itself superseded by mechanical power. Modern paving will bury the litter accumulated during long years. Carriages and their accessories and all the gay trappings of the past will be relegated to historical museums alongside other musty relics.

The modern machine, ideal for long-distance transportation, has gained remarkable prestige in Chile. In order to appreciate its growing popularity it is well to remember that all automobiles in use in the country are of foreign manufacture, and as long as we may not boast of first-class automobile highways connecting towns in the interior, shorten the distances between cities, and facilitate commercial and social communication, we need not at this time agitate the installation of factories for automobiles for domestic use, because such plants would experience serious difficulties in obtaining necessary materials.

The foregoing statement or objection to domestic manufacture may be considered by some readers unsupported by facts, but I believe that all such undertakings will be possible for us within a short time, when the European war oppresses the capitalists of that continent, inducing them to seek more profitable and advantageous investments in foreign parts.

The automobile in Chile has already made considerable progress. The noticeable increase in the number of machines imported took place in 1915 and 1916, during which years European cars disappeared almost entirely from the market, North American makes being shipped in instead in great quantities. Undoubtedly the determin-

¹ From "Auto y Aero" of Santiago de Chile.



SCENES IN THE AVENIDA DE LAS DELICIAS OF SANTIAGO.

The upper picture shows the appearance of the Avenida de las Delicias in the days of the horse-drawn carriage and cobblestone paving, while in the lower may be seen the contrast offered by the same street to-day on the corner of Eighteenth Street (Calle Dieciocho) with the introduction of automobiles and asphalt paving.

ing factor in this abrupt change in the tide of commerce was the European struggle. The cheaper and lighter North American machines converted many automobilists, thus establishing a precedent which after the war will give rise to a serious and prolonged commercial rivalry for the displaced Chilean market.

To return to our subject—it must be recognized that we are a real factor in automobile annals, and daily broaden the scope of the machine. Nevertheless this element would be present to a greater degree and more comprehensively had we proper roads. Roads are the obsession of every automobile owner. The Chilean plain is very little accessible by machines since the many swamps, lakes, sand dunes, and numberless other difficulties cause excursionists to curb their ambitions to a small radius about the capital. And the same applies not only to excursionists but to the interests of the country as a whole as well, and to an even greater degree. The transportation of merchandise in trucks would be a positive advantage for retail trade, and the development of this system would mean the growth of rural population.

One of the most important of the many interesting aspects of automobiling with us is the social. A car to-day is an essential; it is universal in scope; a vital asset in social life. In Chile to-day it is almost impossible to find a wealthy family that has not one or more automobiles. In this respect, I may quote the remarks of a popular Cuban chronicler, who says:

A tradition is waning—the coach. The luxury of the past is disappearing under the despotic sovereignty of the automobile. What carriages remain? I do not refer to the cabs which are scattered about different parts of the city; nor do I even refer to those which we see daily in slow and monotonous procession wending their way to baptisms, weddings, and funerals. I mean only one class of coach—the private carriage. Style and fashion, which touch everything and pervade all, have decreed its abolition. Only the carriage of high diplomatic circles is to be seen. The coaches of state, in the midst of the noisy traffic of the city, constitute an especial privilege. They form a separate chapter. Not one of the old-time carriages is to be found in the entire capital.

National life has lost something which was the expression of a type. That is, the parade of vehicles after evening gatherings or impressive theater parties. Who does not recall with longing that departure from the opera in the old days? Who could forget, indeed, what a ride in a carriage used to be? A display of fashion. One of the extravagancies of the aristocracy in the past consisted in disporting the best carriages and finest teams. All that is fled. The automobile reigns. The classic coachman of former days has been dethroned by the chauffeur of the present. New inventions have supplanted what was formerly indispensable. Hostlers do not exist. And in place of the coach house and the glass case of gay harnesses there is erected a garage with an ample gas tank. It is only natural. "New tastes, new customs."

Undoubtedly the Chilean city which beat all records in the development of automobiling is Antofagasta. In two years the system of dappled horses has been transformed into the régime of the machine.



THE AUTOMOBILE AT VIÑA DEL MAR.

The animation at the picturesque and aristocratic Chilean bathing beach, Viña del Mar, was increased by the appearance of the automobile. The upper picture shows the section of the beach known as Playa de Miramar when it was visited only by carriages. The lower picture shows the same section as seen now, frequented by handsome automobiles.

It should be noted that in this northern port paving is excellent, while in its environs not one creditable road is to be found.

In Santiago also the peaceful public streets have been transformed by the honks and brakes of the modern car.

In Valparaiso and Vina del Mar the modification made in public transit by the automobile is notable, and it is hoped that in those cities even more rapid progress may be made in favor of definite regulation of the roads of the Province, which may be accomplished through the enthusiasm and executive ability peculiar to the people of those districts. In this respect the Province of Valparaiso has surpassed even the capital.

The southern cities merit special mention for the constant progress they are making in automobiling. Concepcion, Punta Arenas, Valdivia, and Temuco are most advanced; followed by Talca, Chillan, and Curico.

ELEMI OF TROPICAL AMERICA¹

THE tropical American forest trees yielding the oleoresinous gums commonly known as elemi have always been a matter of considerable interest to northern travelers. A good deal has been written about them and their possible value as a source of a fragrant gum resin available for a great variety of more or less important uses. It is rather surprising, however, to note upon careful study of the popular and trade literature that there is very little complete and accurate information as to the botanical origin of these gums or their uses. The essential oils in these gums, which freely exude from wounds in the barks of a number of related trees, have a very familiar odor, which generally attracts the attention of the traveler and at once suggests to him the use of the substance in the arts or in medicine.

Elemi is a general name applied to the gum products of a good many trees in the Tropics and although no one appears to know the origin of the word, it is believed by some that it is a corruption of the word anime, which is the Indian name of the resin produced by the West Indian locust (*Hymenaea courbaril*). The term gum elemi has been corrupted by the colored people in the Bahama Islands to gomolomie and to gomo limo, and in southern Florida is called gombo limbo. There is perhaps no other forest product that has so many

¹ By C. D. Mell.

common names as the elemí gums. In Venezuela they are called tacamahaca; in British Guiana, conima or hyawa gum; in French Guiana, carana resin; and in Brazil, breo branco. *Icica* is the native South American Indian name applied to this pitch-like substance, while in Mexico it is the linoloe.

Those interested in this resin product understand that the above names stand for a fragrant gum resin obtained from different trees, chiefly from species of *Amyris*, *Icica*, and *Protium* belonging to the *Burseraceæ*, a family of plants having a large amount of gum in all parts of the trees. Elemí from various species have been imported at different times, and among these may be mentioned the Mexican elemí, derived from *Amyris elemífera*; Brazilian elemí, from *Protium heptaphyllum* and *P. icicariba*; Guiana elemí, from *Protium guianense* and other species; and the Venezuela elemí, tacamahaca, or frankincense, which is the product of several species, chiefly *Protium heptaphyllum* and *P. carana*. In Brazil are a good many species, all of which yield gum in considerable quantities. Besides those mentioned above are *Icica altissima*, *I. viridiflora*, and *I. copal*. The term copal is sometimes applied to these gums in Brazil, but it does not signify the hard reddish substances known as copal by the varnish makers. Leaving out of consideration the amount of foreign matter in elemí from different botanical and geographical sources, all gum is substantially alike in its chemical composition, whether it is tacamahaca (*Protium heptaphyllum* in Venezuela or Rio elemí (*Protium icicariba*) from southern Brazil. The latter species is the one most widely distributed and was one of the first of this group to be described. The specific name, *icariba*, is derived from two Tuppi Indian words—*icica*, meaning gum and *uba*, signifying tree.

In British Guiana it is the well-known bastard cedar tree yielding the bulk of the incense or elemí real of French Guiana. It is called incense tree, and the Indians refer to it as hyawa. Its botanical name is *Protium heptaphyllum*, and is very closely allied to the white cedar (*Icica altissima*), which is so common throughout tropical America. It must not be confused, however, with the true cedar (*Cedrela odorata*), for they do not belong to the same family of plants. The bastard cedar of hyawa is very abundant in the interior of British Guiana; and although it does not have at present a great commercial value as a timber tree, it produces a gum employed locally for incense in religious ceremonies.

Where this tree grows the whole air for some distance around is pleasant and wholesome with the incense-like odor of the white resin dropping from wounds in its stem and collecting in masses on the ground. Occasionally lumps of hard resin are found in forks of branches, and so-called fossil gum occurs in masses in the ground at the bases of trees. The fragrance of this resin remotely resembles

more powerfully scented perfumes obtained by the Indians from tauranero (*Humirium floribundum*), which surpasses the odor of vanilla. The Indians regard this tree as one of the most important ones in the forest, because its resinous wood is much used by them for such purposes as kindling of fire, the making of torches, and to scent the oils with which they anoint their bodies.

The bastard cedar grows very plentifully along the Essequibo River in British Guiana in the loose, sandy soil, where it attains an average height of about 50 feet and from 1 to 2 feet in diameter. Logs can be obtained 20 feet long and from 10 to 12 inches square free from sap. The wood is pale yellow, or sometimes nearly white, moderately soft, light in weight (about 32 pounds per cubic foot), not strong, though fairly tough, and not very durable in contact with the soil. It works well and does not warp or crack in drying. The wood has a strong aromatic odor and should find use in the manufacture of boxes, wardrobes, book shelves, and models.

Brazilian elemi, called breo branco, is used throughout the Amazon Valley for calking the seams in ships. It is produced by various species of *Icica* and *Protium*. The native name for the true elemi gum is icicaritari to distinguish it from yutahi-icica or copal produced by the species of *Hymenæa* or *Peltogyne*. Dr. Richard Spruce in his "Notes of a Botanist on the Amazon and Andes" gives us the following information:

When the bark of the *Icica* is wounded, a white milk flows slowly out and coagulates just below the wound, which does not heal up quickly as in most milky trees, but continues to distill for several months or even years. The Indians, therefore, when they come across these trees in the forest, gash them with their terçados, in order that, when they visit them sometime afterward, they may find a good lump of resin accumulated. Breo branco is brought to market, either in its crude state, packed in baskets lined with leaves, when it is called breo virgem, or in thick cylinders, having been run into molds of that shape. It is whitish, friable, and exhales a strong agreeable odor. When melted and spread out over a plank or seam it dries rapidly, and unless a good quantity of grease has been mixed with it in the melting it breaks away; but if that precaution has been taken it adheres very tenaciously, and keeps out the water much better than the black pitch or Panani, which is obtained from a clusiaceous tree.

Gum elemi is employed largely in the arts, and it is believed that after it becomes better known in this country a good use can be made of it in the manufacture of varnishes, soaps, felting and particularly in the making of printers' ink, in which its honey-like consistence and adhesive character are peculiarly useful. However, a series of experiments will be necessary in order to determine its real value. One of the chief uses in the region of its growth is as a stimulant ointment for indolent ulcers, but the regular practitioners seldom prescribe it. It is generally found in the medicine chest kept on board sailing ships in tropical America, and is also used locally for incense and for torches, and for this reason some of the trees yielding elemi gum are called torch wood.

PAN AMERICAN NOTES

LUNCHEON IN HONOR OF THE PERUVIAN AMBASSADOR.

THE Pan American Society of the United States gave a luncheon May 20 at the Hotel Astor, New York, the guest of honor on the occasion being Dr. Francisco Tudela y Varela, the ambassador of Peru to the United States. Dr. John Bassett Moore, president of the society, in introducing his excellency, spoke in part as follows:

In our international annals the name Peru is associated with a long and unbroken friendship. The record of this friendship is found both in the diplomatic correspondence between the two countries and also in their treaty stipulations, which have been characterized by mutual confidence and reciprocal liberality. The treaty of commerce of 1851, which has served as a model for subsequent conventional arrangements between the two countries, incorporated the most-favored-nation principle. Adopting as its standard the rule that had come to prevail among nations professing to be civilized, it forbade the confiscation of private debts or private property. Furthermore it provided that, if a charge of violation of its terms should be made, neither party should resort to any act of reprisal or of war without having first sought satisfaction of its complaints by statements verified by competent proofs. In harmony with this stipulation we find that where differences have arisen they have been settled by impartial arbitration, of which we trace in the intercourse between the two countries numerous examples. In one case, relating to the seizure of the vessels *Georgiana* and *Lizzie Thompson*, the United States, having become convinced that the claim was not well founded, withdrew it from the arbitrator and renounced it. I particularly advert to this fact because several years ago I read, in a learned and laborious source of misinformation called an encyclopedia, the statement that Peru had eventually yielded to the representations of the United States and paid the claim.

Reviewing the relations between our two countries, I venture to say that the spirit which has pervaded them is most happily exemplified in the character and the career of the guest of the day. I have spoken of the antiquity of his country; and we may readily believe that among the treasures which it holds none is more cherished than the ancient institution, the first of its kind in America, the University of San Marcos, founded by Charles V. Of this renowned seat of learning his excellency is an alumnus. Setting out in public life in the diplomatic service, he has in the course of his brilliant career filled with ability and distinction numerous high positions both in the legislative and in the administrative branch of the Government. Repeatedly elected a member of the chamber of deputies, he became the presiding officer of that body. He has thrice been a member of the cabinet—once as minister of finance and twice as minister for foreign affairs. His appointment as the first Peruvian ambassador to the United States may justly be regarded not only as the reward of eminent and useful public service but also as a manifestation of the respect and good will of the Government and the people of Peru toward the Government and people of the United States.

I ask you to rise to the health of His Excellency Dr. Francisco Tudela y Varela, whom we delight to honor both as a man and as the accomplished representative of our sister Republic of Peru.

Ambassador Tudela responded in part as follows:

The Pan Americanism which was proclaimed at the congress of Washington in 1890 was, in fact, principally based on the doctrines which are to-day rising luminous, an outcome of the World War. Such are the disapproval of the principle of conquest, the favoring of reciprocal guaranties of territorial integrity, and the establishment of compulsory arbitration for the solving of differences between nations.

The World War has proved that progress which is attained in defiance of these fundamental principles is as ephemeral as the incredible progress achieved by Prussia. That which is achieved by might can endure only so long as it is sustained by might. Right born of justice is alone immutable and eternal.

Nations which, like Peru, have always invoked these doctrines and which witnessed the struggles undertaken to achieve these ideals, from the time when, in 1824, its Government, then headed by Bolivar, initiated the congress of Panama, and later those of Lima in 1848 and 1865—such countries are to-day experiencing the greatest satisfaction at the coming of this new juridical era for humanity.

Peru considers with sincere gratification the decisive part which has fallen to the United States in the process of world reconstruction. The fruitful American blood which flowed in 1776 in the cause of political liberty, and again in 1861 for the civil rights of man, has once more been shed in this titanic struggle for the international liberty of peoples founded on justice.

My country especially appreciates the generous and disinterested attitude of the United States, because the annals of its history contain positive proof of the altruistic policy of America. In addition to the circumstances you have so accurately just quoted, others of equal importance deserve to be mentioned, which confirm the friendly spirit which has animated the relations between Peru and the United States. Peru has not forgotten the incident of the Lobos Islands, the ownership of which was discussed by the United States Government in 1852—an incident which ended in the declaration of the Secretary of State, Everett, on the 16th of November of that year, that "he could find no motive why the legitimate sovereignty of Peru over those islands should be questioned," and that "the United States hastened to make this recognition in consequence of the unintentional injustice done to Peru, owing to the momentary absence of information illustrating the question." These pages of diplomatic history are a glowing tribute to the high-minded and disinterested sense of justice which animated the statesmen of that day and governed their actions.

None may question the authority with which the United States to-day addresses the world, since this authority springs from the most evident impartiality and from the clearest sense of the duty which destiny has conferred on this great democracy; and still less can that authority be disputed on this continent, in which has prevailed an ardent desire for a juridical organization ever since its different entities acquired their political independence.

Pan Americanism will become a reality when that organization shall likewise have acquired recognition and justice be the immovable foundation of the prosperity and wealth of its nationalities. Pan Americanism must therefore undertake to-day, with greater vigor than ever before, the defense of the high ideals which gave it birth, and which, within the larger universal constitution of nations, or parallel with it, shall determine the recognition of those juridical principles without which neither a lasting peace nor wealth nor progress worthy of the name can command respect.

Let us therefore raise our glasses, gentlemen, to the not far distant happy future of the America of Colon, to the Pan American Society, whose aims deserve the most enthusiastic applause, and to this great Republic, which has known how to astonish the world, both by her stupendous material progress and by the sacrifice entailed through her noble and generous efforts to achieve the moral regeneration and juridical advancement of nations

BUSINESS TRAINING FOR ENGINEERS.

On June 23 and 24 an important conference on business training for engineers and engineering training for students of business was held at Washington, D. C. The conference was called by Dr. P. P. Claxton, United States Commissioner of Education, and was attended by many prominent members of engineering societies and representatives of various educational institutions of the United States. Among the prominent speakers who made addresses at the several meetings were Hon. P. P. Claxton, United States Commissioner of Education; Dr. Anson Marston, dean of the division of engineering of Iowa State College; Mr. Spencer Miller, vice president American Society of Mechanical Engineers; Mr. Edward N. Hurley, chairman United States Shipping Board; Dr. Walter Rautenstrauch, professor of mechanical engineering at Columbia University, New York; Mr. E. F. Dubrul, president of the Pyro Clay Products Co., of Cincinnati, Ohio; Maj. Gen. W. M. Black, Chief of Engineers, United States Army; Maj. Gen. John F. O'Ryan, United States Army; Dr. Charles R. Mann, chairman advisory board, committee on education and special training, United States War Department; Mr. Angus W. McLean, director of the War Finance Corporation, Washington, D. C.; Mr. Fred Lavis, consulting engineer American International Corporation, New York; Mr. W. W. Nichols, chairman committee on education, American Manufacturers' Export Association; Dr. J. W. Jenks, and others. At the final session of the conference the following resolutions, prepared by Dr. Glen Levin Swiggett, specialist in commercial education, were unanimously adopted:

It is the sense of the meeting that—

1. Industrial and commercial development has created a demand for men with technical engineering training and business ability. Manufacturing industries are seeking engineers to qualify to serve in capacities requiring sound business training. Banks and brokers also need men with business training and the engineering point of view. This need is rapidly increasing and bids fair to demand a large number of technically trained men for both domestic and foreign commerce.

2. In order to meet this demand the economic phases of engineering subjects should be emphasized wherever possible in engineering instruction. This may be done by emphasizing the problems of values and costs in the regular technical work and by introducing or extending courses in general economics, cost accounting, business organization and business law into the engineering curricula. These courses should be designed particularly to meet the needs of the engineering student.

3. The engineering phases of economic subjects should be emphasized wherever possible in commercial instruction. Students in commercial courses should also be given opportunity to take special courses in the basic principles and practices of engineering, so that they may understand in general terms the operation of power plants and transportation systems from the engineering point of view.

4. It is also urged upon all institutions with departments in engineering and economics or commerce that they consider some plan of coordination to develop a course in preparation for those careers wherein practical training in modern languages, in the essentials of engineering, and business theory and practice have been found to be both helpful and necessary.

A COMMENDABLE PLAN.

The American Association of Teachers of Spanish has evinced a genuine interest in the establishment and maintenance of closer relations between the United States and Spanish-speaking countries. With this aim in view, the association appointed a committee of 10 members, with Mr. C. F. McHale, professor of Spanish of the National City Bank, as chairman. This committee is endeavoring to create scholarships in Spanish-speaking countries for North American young men.

It is the opinion of the members of the committee that one of the practical ways to attain the above-mentioned end would be to aim at the provision of positions for North American young men in commercial houses of Spanish-speaking countries or in commercial houses of the United States that have branches abroad. This plan would afford a practical means of disclosing to other countries the good elements that the United States possess and of contributing in this manner to be a better understanding between nations.

For the present the committee is limiting its activities to a publicity campaign to ascertain exactly what attitude the business world will assume toward this plan. When it is definitely known what sources of assistance can be depended upon, the committee will be in a position to decide upon details, such as the number of young men to be sent abroad, countries to which they are to be assigned, length of their stay in these countries, etc.

It is to be hoped that the large exporting houses, banks, chambers of commerce, and all institutions interested in the development of the foreign trade of the United States will cooperate with the committee and will thus facilitate the realization of so praiseworthy an undertaking.

The committee will welcome any suggestions that may be offered, and communications may be addressed to Mr. C. F. McHale, Spanish instructor of the National City Bank of New York, 35 Wall Street, New York.



AGRICULTURE, INDUSTRY AND COMMERCE

ARGENTINA.

The FOREIGN COMMERCE of Argentina, for the first nine months of 1918, as given by the general office of statistics, compared with the same period of the preceding year, shows on the import side a decrease of 7,650,433 pesos gold (statistical values), and on the export side an increase of 206,467,469 pesos. Estimating the peso gold at 97 cents, in United States values, the trade of the two periods (nine months each) in comparison was as follows:

	1917	1918
Imports.....	\$129,795,380	\$122,374,460
Exports.....	401,607,534	601,880,979
Total.....	531,402,914	724,255,439

The following table shows the imports for the two periods (nine months each) by countries:

	1917	1918		1917	1918
United States.....	\$46,310,385	\$41,823,116	Sweden.....	\$849,600	\$582,742
United Kingdom.....	30,668,112	31,655,347	Norway.....	623,436	220,560
Brazil.....	11,171,800	10,960,258	Peru.....	3,911	1,269,210
Spain.....	9,943,065	10,273,521	Bolivia.....	301,779	398,029
Italy.....	8,936,041	5,348,432	Portugal.....	238,727	237,125
France.....	8,067,509	6,187,419	Canada.....	166,408	75,054
Uruguay.....	2,050,653	987,166	China.....	151,265	168,913
Mexico.....	2,369,003	1,072,626	Germany.....	110,607	68,224
Paraguay.....	1,940,341	1,686,208	Denmark.....	93,555	11,827
Chile.....	1,025,313	1,805,128	Belgium.....	43,408	30,338
Japan.....	976,845	3,138,547	South Africa.....	26,873	546,556
British possessions.....	1,017,608	1,854,403	Austria-Hungary.....	4,610	415
Switzerland.....	1,094,102	713,847	Other countries.....	68,817	99,263
Cuba.....	748,764	886,635			
Netherlands.....	792,843	293,551	Total.....	129,795,380	122,374,460

The value of the imports is the aggregate of the fixed tariff appraisements under which goods are dutiable in Argentina. These appraisements are at present far below "real" or invoice values. The Statistical Office estimates that the figure of 133,809,670 pesos (\$129,795,380) above given for imports for the first nine months of 1917, in reality represented 266,787,767 pesos (\$258,784,413), or nearly twice the statistical figure, and that the figure 126,159,237 pesos (statistical values) (\$122,374,460) for the corresponding period of 1918 represented true values of 365,863,173 pesos (\$354,887,278), or about $2\frac{3}{4}$ times the statistical figure. Measured in values therefore there was an increase in imports of Argentina instead of a

decrease, as shown above. Generally speaking, the statistical values show comparisons by quantities and not comparisons by values.

Argentine imports are grouped in 17 classes. Comparing the nine months of 1918 with the like period of 1917, there was a decrease in the importation of live animals, of food substances, tobacco, beverages, oils and greases, paper and manufactures, leather manufactures, iron and steel manufactures, electrical goods, and miscellaneous. There were increases in textiles, in lumber and manufactures of wood, in metals other than iron and steel, in agricultural implements, and in glassware. The largest decrease was in sugar, amounting to over 7,200,000 pesos. It is understood that the figures represent changes in quantities rather than in current values, as explained above. Under the heading of textiles there were decreases in silk and in wool. The increase in cotton textiles was 3,492,782 pesos, and in textiles other than silk, wool, and cotton, 4,421,791 pesos. This large increase is accounted for almost entirely in the increase in imports of jute grain bags and bagging.

The following table shows the exports for the two periods (nine months each) given in comparison; values of the exports represent the average of current prices:

	1917	1918		1917	1918
United States.....	\$104,515,384	\$136,935,757	Sweden.....	\$2,588,229	\$1,703,756
United Kingdom.....	124,348,261	226,936,604	Switzerland.....	1,377,164	.....
France.....	53,459,490	75,608,509	Japan.....	904,438	2,480,726
Italy.....	21,565,367	28,970,676	South Africa.....	1,782,249	3,713,305
Brazil.....	17,404,737	23,356,878	British possessions.....	461,054	179,619
French possessions.....	9,100,273	4,101,522	Bolivia.....	529,078	801,168
Uruguay.....	8,034,720	11,492,621	Peru.....	286,691	15,954
Spain.....	5,928,249	15,741,716	Egypt.....	281,006	190,465
Norway.....	6,709,764	2,445,915	Cuba.....	59,911	160,180
Netherlands.....	4,494,123	621,685	On orders.....	27,488,545	48,402,012
Chile.....	2,445,366	6,138,076	Other countries.....	1,652,218	8,485,012
Denmark.....	3,850,005	.....	Total.....	401,607,534	601,880,979
Paraguay.....	2,338,207	3,398,823			

The exports are grouped in six classes, and there were large increases in each of the classes, except that of forest products, which shows a decrease of 2,328,123 pesos. In products of the grazing industry the increase was 97,888,739 pesos, and in products of the agricultural industry, 99,801,802 pesos. There was a slight increase in exports of mining and of hunting and fishing, and miscellaneous.

The following shows some of the chief articles of export for the nine months of 1918: Frozen beef, 364,963 metric tons, of which 196,373 were to the United Kingdom, 126,618 to France, a large part of the remainder to Italy, and less than 700 tons to the United States. Frozen mutton, 32,642 tons, of which 27,862 tons to the United Kingdom, and nearly all of the remainder to France. Hair and bristles, 1,174 tons, of which 569 to the United States and 537 to the United Kingdom. Goatskins, 736 tons, of which 507 to the United States and 188 to Spain. Kid skins, 172 tons, of which 126 tons to Spain and 40 tons to the United States. Salt cattle hides,

60,827 tons, of which 32,631 tons to the United States, 24,241 tons to the United Kingdom, and 1,069 tons to Canada. Flint cattle hides, 10,462 tons, of which 5,047 tons to Italy, 2,439 tons to Spain, 970 tons to the United Kingdom, and 184 tons to the United States. Horsehides, principally to Spain and the United States. Wool, 89,780 tons, of which 62,094 tons to the United States, 12,743 tons to France, 6,903 tons to Italy, and 1,892 tons to the United Kingdom. Cured meats, 149,347 tons, of which 73,382 tons to the United Kingdom, 38,632 tons to the United States, and 31,979 tons to France. Butter, 12,389 tons. This was an increase of nearly double that of the preceding period of 1917; practically all of it went to the United Kingdom, with small amounts to France and the surrounding countries—Chile, Paraguay, and Uruguay. Rendered grease and tallow, 80,841 tons, of which 47,624 tons to the United Kingdom, 11,978 tons to the United States, 7,908 tons to Italy, and 6,057 tons to France.

In the agricultural class the export of oats was 399,105 tons, of which 313,622 tons to the United Kingdom and 49,201 tons to France. Linseed, 324,471 tons (the exports of the preceding period of 1917 were 89,531 tons), of which 226,622 tons to the United States, and 42,688 tons to the United Kingdom. Corn, 342,953 tons, of which 105,552 tons to the United Kingdom, 29,449 tons to the United States, and most of the remainder to France, Spain, Italy, Norway, Sweden, and the French possessions. Wheat, 2,771,619 tons (over three times the export of the corresponding period of 1917), of which 1,353,855 tons to the United Kingdom, 237,535 to Brazil, 163,800 to France, 159,518 to Spain. Nearly 700,000 tons were exported "on orders." Most of this "on order" wheat was taken by the countries given in about the same proportion, thereby increasing the figures given. Wheat flour, 119,598 tons, of which 79,571 tons to Brazil, and most of the remainder to continental Europe and South Africa.

Extract of quebracho, 87,735 tons, of which 41,726 tons to the United States, 17,844 tons to the United Kingdom, 12,640 tons to France, and 8,740 tons to Italy.

In 1918 the CULTIVATED AREA in the Argentine Republic aggregated 24,800,000 hectares, as compared with 23,400,000 in 1917, or an increase in 1918 of 1,400,000 hectares. The 1917-18 wheat crop was the largest ever grown in Argentina, the 7,400,000 hectares sown to this cereal having produced 6,086,000 tons of wheat.

According to a report of the consul general of the Argentine Government in Stockholm, when the effect of certain agreements made by Sweden with some of the allied countries ceases the ARGENTINE-SWISS TRADE will be greatly developed, inasmuch as Sweden now realizes the advantages to be attained by trading directly with the Argentine Republic.

In a note of May 9 last the Argentine Government manifested its desire to deliver to the Allies, in accordance with agreements made, the GERMAN SHIPS which took refuge in Argentine waters during the war.

The SECOND NATIONAL AGRARIAN CONGRESS met in Rio Cuarto on April 17 last, with 89 delegates present. Dr. Nicolas Repetto, a deputy to the Argentine national congress, was chosen president.

The general bureau of public works has prepared a plan for the CONSTRUCTION OF FLOATING DOCKS at some of the towns on the Parana, Upper Parana, and Paraguay Rivers, with the object of complying with the wishes of the national authorities of Formosa and Chaco territories and of the governments of the Provinces of Corrientes and Entre Rios.

BOLIVIA.

With a view to encouraging the raising of HORSES AND MULES to supply mounts for the army, without the necessity of purchasing stock outside of the country, on April 20 last the President issued a decree inviting the proprietors of ranches and concessionaires of pasture land to present bids to the government for the establishment of stock farms on modern scientific bases. The Government will advance a stipulated sum as a bonus for each animal reared, for a period of four years, and agrees to begin buying stock at the fifth year, purchasing from each farm not less than 100 head annually, at the regular market price.

According to press reports the directorate of the Bolivia Railway Co. has presented plans to the Government for the completion of the POTOSI-SUCRE RAILWAY. The line is 178 kilometers in length, 50 of which are nearly ready for service, and 11 more will soon be completed. The total cost of the enterprise is estimated at 19,351,470 bolivianos (boliviano=\$0.39 United States gold), and 3,500,000 bolivianos have already been expended.

According to tables compiled by the Customshouse Review of Bolivia (Revista de Aduanas) the EXPORTATION OF TIN from that country in 1918 amounted to 48,801,027 kilograms, valued at 129,611,140 bolivianos. Of the total amount, 32,286,301 kilograms, valued at 90,169,603 bolivianos, were exported through the customshouse at Oruro; 15,093,592 kilos, valued at 35,324,449 bolivianos, through that of Uyuni, 1,032,782 kilos, valued at 2,552,188 bolivianos, through La Paz, and 388,352 kilograms, valued at 1,564,900 bolivianos, through Villazon. The tariff levied upon these exports totaled 7,380,653 bolivianos. Great Britain received the largest portion, 27,303,086 kilograms, with the United States second, with 18,189,419 kilograms, and Chile third, with 2,981,833 kilograms.

BRAZIL.

According to official statistics the RAILWAY SYSTEM OF BRAZIL has a length at the present time of 30,101 kilometers, distributed by States as follows: São Paulo, 6,706; Minas Geraes, 6,527; Rio de Janeiro, 3,131; Rio Grande do Sul, 2,756; Pernambuco, 2,098; Bahia, 1,839; Matto Grosso, 1,168; Parana, 1,064; Santa Catharina, 1,018; Ceara, 891; Espiritu Santo, 652; Para, 450; Parahyba, 368; Alagoas, 364; Rio Grande do Norte, 313; Sergipe, 292; Federal District, 187; Goyaz, 179; Maranhao, 91, and Amazonas, 6.

Frank Carney has been authorized by the National Government to lay, maintain, and operate a SUBMARINE CABLE from the city of Rio de Janeiro to a point on the Island of Cuba. The concession is without special privilege, monopoly, or national subvention.

An executive decree of April 9 establishes a consulting committee to deal with matters relating to WORKMEN'S ACCIDENT INSURANCE.

The Government of the State of Rio Grande do Sul has made a contract for such DREDGING of the Santa Maria and Ibicuihy-Mirim Rivers as may be necessary to make them navigable for vessels of small draft.

The English board of trade of São Paulo has decided to hold a series of EXHIBITS OF ENGLISH MANUFACTURES. Each exhibit will be open for three months, and will include some specific industry, together with the by-products therefrom. The first exhibit will consist of thread, cotton, woolen, linen and silk fabrics, etc., and will be opened in September next.

On April 30 last the PETROPOLIS RAILWAY celebrated its sixtieth anniversary. This was the first railroad built in Brazil and was originally known as the Maua Railway, having been constructed through the efforts of Irineu Evangelista Souza, Viscount of Maua, who also established steam navigation in Brazil, as well as the installation of electric light and gas in Rio de Janeiro.

The executive power has approved the new BY-LAWS OF THE BRAZILIAN LLOYD Steamship Co., which has in operation 66 steamers, representing 167,874 gross and 97,327 net tons. Twelve of these vessels, having 84,293 gross and 47,440 net tons, were formerly German ships. Four vessels, representing 8,421 gross and 5,527 net tons, are being repaired. The steamers of this company made 481 round trip voyages in 1918, representing 1,961,698 miles, carried 87,030 passengers, 949,631 metric tons of freight, and 1,284 head of stock without any accident whatsoever. The net earnings of the company last year were 7,731 contos.

According to press reports construction work has been commenced on a large COLD-STORAGE PLANT in Minas Geraes, between Cresotagem and Bemfica stations.

A company was recently organized in Porto Alegre to engage on a large scale in the cultivation of the EUCALYPTUS TREE.

The department of agriculture has just imported from the United States 120 tons of Chevalier, Imperial Chile, and Common Witch Two BARLEY for distribution to brewers who have commenced the cultivation of that cereal in the Republic.

The exports of Brazil during the first quarter of the present year consisted of 550,741 tons of merchandise, valued at 563,036 contos, as compared with 474,057 tons, valued at 236,281 contos, during the same period of 1918. Coffee was a large factor in these exports, inasmuch as from January to March last the shipments of coffee aggregated 4,088,000 sacks, as compared with 1,775,000 sacks during the same months of 1918, 3,047,000 sacks in the same period of 1917, and 2,774,000 sacks in the corresponding period of 1913.

At Cachoeira, State of Rio Grande do Sul, an AGRICULTURAL SOCIETY, with a capital of 400 contos, has been organized to engage on a large scale in the cultivation of rice, the planting of trees, and the raising of stock.

CHILE.

According to information received from the Nitrate Propaganda Association, the EXPORTATION OF NITRATE between July 1, 1918, and March 31 of this year amounted to 37,061,521 quintales, from the following districts: Tarapaca, 16,702,495; Tocopilla, 1,681,165; Antofagasta, 13,423,009; Aguas Blancas, 2,687,090; and Taltal, 2,567,762 quintales.

The Norwegian Industrial Co. and the Norwegian Industrial Bank have commenced operations in Chile under the name of the ELECTRICAL CHEMICAL CO. (LTD.) (Chilean-Norwegian Industrial and Financial Co.) and will promote various commercial and industrial enterprises.

A new INSURANCE COMPANY called "La Polar" has been formed in Magallanes with a capital of 600,000 pesos (pesos = \$0.3650 United States currency).

Last May a group of business men met in Santiago to form a CHAMBER OF COMMERCE in that city. According to the prospectus the purposes of the organization shall be the encouragement of commerce; the standardization of methods and promotion of closer acquaintance among business men as a means of mutual protection; the establishment of arbitral mercantile tribunals; the publication of monthly bulletins containing commercial, legal, or administrative information which may be useful; the obtaining of reforms and modifications in mercantile legislation; the maintaining of communication with Chilean consuls in foreign countries, and with chambers of commerce in other countries; and the encouragement of foreign commerce and business education in the country.

A presidential law of April 29 authorizes the expenditure of 25,000,000 pesos, gold, for the ELECTRIFYING OF THE FIRST ZONE OF NATIONAL RAILWAYS and approves the project for construction and repairs presented in law No. 3501 of February 20, 1919. The sum will be appropriated from the funds obtained by the loan authorized by the law cited. The Valparaiso-Santiago Railroad is comprised in the zone.

According to official statistics relative to the EXPORTATION OF HIDES, in the first four months of the present year 14,700 cowhides, 80,387 sheepskins, and 247,916 pigskins were exported, as against 5,620, 53,100, and 146,000, respectively, in the entire year 1918 and 35,896, 135,450, and 24,228, respectively, in 1917.

The National Government has appointed Señor Ernesto Guzmán Donoso, a member of the commission sent to the United States by the National Railway Co. to study the PRODUCTION AND SMELTING OF IRON in the northern Republic for two years, and to make a complete report on the subject at the end of that period.

The small island, Chimba, situated north of the port of Antofagasta, and a necessary part of the adjacent beach, has been leased by the Government to a private concern for the CONSTRUCTION OF A HARBOR to be used exclusively in the loading of nitrate, the concessionnaire agreeing, among other things, to establish a branch railway line connecting the island with the Antofogasta-Bolivia Railway line.

COLOMBIA.

The commission which is investigating the territory through which the EXTENSION OF THE SABANA RAILWAY is to run, from Facatativa to Pacho, has submitted an interesting report by which it appears that all property owners who hold land between the El Dintel station and the river port which is to be the terminus of the line offer to cede the right of way gratis, as well as the land needed for stations, depots, warehouses, yards, etc., and also the construction material. Furthermore, the municipalities of Pacho, Supata, San Francisco, and some others have agreed to provide 4,000 workmen for construction.

Since law 23 of 1918 authorizes the National Government to issue Colombian bonds for the purpose of obtaining internal loans with which to carry out certain imperative public works, the President has authorized the use of \$100,000 of those bonds in the EXTENSION OF THE RAILWAY from Tolima to Ibagué. The first locomotive has already crossed the Gualanday divide on a trial trip, proving that the most difficult part of the engineering work has been accomplished, since the remainder of the way lies through plains.

The departmental assembly of Antioquia has created a board whose duties shall be to consider plans for the URABA RAILWAY and submit a draft of the right of way to the assembly of 1920.

A presidential decree authorizes the completion of the CARARE HIGHWAY, and permits the ministry of public works to organize two committees of engineers, one to formulate projects for similar roads in the Boyaca section and the other for those of Santander.

One of the industries most recently established in the Department of Magdalena is the CINCINNATI COFFEE CO., which has imported the most modern machinery and produced 800 sacks of coffee during the last crop. The fact that banana exportation was considerably diminished by limitations prescribed by the United States during the war stimulated coffee cultivation. The company intends to increase the area under cultivation and extend the highway to its own plantation and later to Ariguani, where it will also establish a large sugar mill.

Sres. Alberto and José María Nieto have petitioned the National Government for authorization to establish NAVIGATION BETWEEN THE NARIARE AND GUAVIARE RIVERS, and the Government has requested further details concerning the project.

Late in March a commission of engineers, headed by a distinguished geologist from the United States, reached Banco with the purpose of considering the possibility of constructing a RAILWAY FROM BAHIA HONDA TO THE MAGDALENA RIVER.

The National Government has set aside a part of the receipts derived from water transportation taxes on the Magdalena River for the IMPROVEMENT OF THE CAUCA RIVER, and has named the members of the canalization board of the lower Cauca, in accordance with the dispositions of law No. 53 of 1918.

COSTA RICA.

In order to stimulate the development of the BANANA INDUSTRY and to encourage the fruit growers to cultivate a larger area of the crop, the United Fruit Co. has agreed to raise the price it pays for a first-class bunch of bananas to 39 centavos, gold, and that of second-class bunches to 19 centavos, in case the grower has increased his banana plantation by at least 20 per cent in area. This increase will mean a total of 1,000 hectares, counting the present area under cultivation at 5,000.

The CEMENT INDUSTRY has progressed considerably in the past few years in the country, as tiles of all kinds as well as pieces of masonry used in construction and ornamentation are now manufactured, including pedestals for statues, columns, various kinds of flowerpots, washbowls, bathtubs, sewer pipes, gravestones, and all articles that have cement as a foundation. A great variety of kinds and styles of tiles are made, not only of cement but of the material known as pedrin.

Since oil is now being extracted in Costa Rica by high-pressure machinery, a newspaper of San Jose recommends to agriculturalists the cultivation of certain OLEAGINOUS PLANTS, such as the sunflower and almond tree, which produce a richer, smoother, and more nutritious oil than many of those that are now being imported into the country. The stem of the sunflower as well as the seeds may be utilized, as a fine fiber is obtained from the stalk which is used in wearing apparel, and the leaves make excellent fodder for cattle; while the oil obtained from the seed is superior to cottonseed or corn oil, being in fact nearly as smooth as olive oil itself. The sunflower seed, one of the richest in oil, yields 40 per cent oil, while the remaining pulp is very nutritious for stock and fowls. Moreover, the plant grows and matures rapidly and in almost any soil. The almond tree grows prolifically in hot sections and bears well without special attention or care. In some places the nut is used in cooking as a substitute for butter, as it produces a clear oil with an agreeable taste, of superior quality and consistency. It is rich in food value, and the paste which remains after its extraction is used in confectionery and candies.

CUBA.

Official figures place the value of the FOREIGN TRADE of 1918 at \$710,947,465, as against \$639,418,565 in 1917—an increase of \$71,528,900 in favor of 1918, of which increase \$25,049,159 worth of goods were imported and \$46,479,741 exported, as in 1918 the imports were valued at \$297,622,214 and the exports at \$413,325,251, compared with \$272,573,055 and \$366,845,510, respectively, for 1917. Comparing the latter figures, it will be found the balance in favor of Cuba in 1918 was \$115,703,037 and \$94,272,455 in 1917. The bulk of the trade in both years was conducted with the United States, Great Britain, and Spain in the order named.

Press notices state that, beginning with July of this year, the boats of the American company, the South Atlantic Maritime Corporation, will conduct WEEKLY SERVICE between Savannah and Habana and monthly service from Charleston, Jacksonville, Wilmington, and Brunswick, to Brazil and Argentina. Six steamships have been selected for the service, two of which will run between Cuba and Savannah.

Owing to the high cost of meat in Cuban markets, a Habana firm has begun the IMPORTATION OF LIVE STOCK from Central America. The first shipment, consisting of 1,001 head of stock from Costa Rica, reached Habana during May.

The Wholesale Dealers Association of Habana has recently established a COMMERCIAL SERVICE BUREAU in connection with its office, with the purpose of furnishing wholesale importing

houses with necessary information concerning the credit and rating of retail buyers and dealers who request credit.

By formal declaration subscribed to before a notary public of Santiago de Cuba, a GENERAL INSURANCE COMPANY has been organized in that city under the title of "La Unión Antillana, S. A.," which will insure maritime and land transportation.

The corner stone of the MUNICIPAL MARKET to be erected in the block between Calzada del Monte, Cristina, Matadero, and Aroyo Streets in Habana was laid at a celebration held June 14, presided over by the mayor of the city, Dr. Varona Suárez.

Press notices state that an important deal in sugar-cane land has been closed in Oriente Province, consisting of the purchase of the land previously held by the Bayate Sugar Co. and several other plantations, upon which two new sugar factories will be established.

By a law of the national congress of June 11, 1919, a loan of \$500,000 for the CONSTRUCTION OF A HIGHWAY between the cities of Cienfuegos and Santa Clara has been authorized.

A large ICE FACTORY is soon to be constructed by several business men of Habana on a site on Luyanó Street. Machinery to the value of \$500,000 has already been ordered for the plant.

The firm of Bacardí & Co., of Santiago de Cuba, has been reorganized as a BUSINESS AND INDUSTRIAL CORPORATION, called the Ron Bacardí Co. (Inc.) ("Compañía Ron Bacardí, S. A."), with headquarters in the same city.

The secretaryship of agriculture has informed the press that the SUGAR PRODUCTION this season will be not less than 4,000,000 tons, according to present indications, as by May 30 the crop had reached 3,775,000 tons, and 59 centrals had not yet reported. The Cuba Cane Sugar Co. predicts that the production this year will amount to 4,300,000 tons.

Early in June Señor José López Rodríguez was awarded the contract for the DREDGING OF THE PORT OF SAGUA after all bids were received. The cost of the work is estimated at \$2,400,000.

DOMINICAN REPUBLIC.

The FOREIGN TRADE OF THE REPUBLIC for 1918 amounted to \$42,108,496, of which \$19,736,152 were imports and \$22,372,344 exports. Compared with the year 1917, these figures show an increase in imports of \$2,336,088 and a decrease in exports of \$72,236, or a net increase of \$2,263,852.

By law No. 284 the military governor of the Republic fixed the fines and penalties for violation of Law No. 80, of September 17 1917, concerning the IMPORTATION OF COTTON SEED.

Late in May a project for the IRRIGATION of the Banegas agricultural section was taken under consideration. It is believed that

with the necessary irrigation this territory could be made one of the most productive parts of the country for stock raising as well as farming.

A WAGON ROAD is being completed between Puerto Plata and Santiago at the expense of the municipalities involved. The road will cross the North Ridge, traverse the beautiful fields about Santiago, cross the Yaque River on an excellent bridge, and terminate at Janico in the Central Mountain Range. It will be 72 kilometers long, 42 of which are already completed and opened for traffic.

On June 1 the Dominican Central Railway established SEMI-DAILY PASSENGER TRAIN SERVICE between Puerto Plata and Moca.

THE DREDGING AND CANALIZATION OF SANTA DOMINGO RIVER is being conducted under the general board of directors of public works. It is expected that it will make the docking of all boats which call there much easier.

ECUADOR.

The President has approved a special tax on capital in BAHIA DE CARAQUEZ, the receipts thus derived to be expended in construction of the Bahia-Quito Railway.

The April Bulletin of the Chamber of Commerce of Quito states that the DEMAND FOR CACAO for export was so great that the price has increased materially, a quintal of "Arriba" class having brought as high as 30 sucres (sucre=\$0.4867 United States gold), Machala 28.50 sucres, and Balao grade, 29 sucres. As the cacao trade is the chief industry and leading source of income of the Republic, the quotations are significant. In the month of April 81,887 bags of cacao, weighing 6,446,736 kilograms, were exported from Guayaquil, 2,113,110 of which were sent by the Association of Agriculturalists and 4,333,266 through other exporters. This is the largest shipment made in any April since that of 1915, as the total for April of the three intervening years was under 3,000,000 kilograms. Of the amount shipped in April this year 4,136,803 kilograms were for Havre, 1,417,484 for Liverpool, and only 515,833 for New York. These figures prove that cacao is gaining its old popularity in foreign markets. Ecuadorian cacao has been sold in London markets recently at 100 shillings a quintal.

GUATEMALA.

According to press reports the NEW CUSTOMS TARIFF regulations for the collection of import and export taxes went into effect July 1 of the present year. The new system provides for both specific and ad valorem valuations, according to the nature of the commodities taxed.

HAITI.

Press reports state that the Government, keeping to its program of increasing the arable area of the Republic by irrigating vast tracts of wild land, will undertake at once extensive work in the PLAINS OF L'ARCAHAIE AND LEOGANE.

An industrial and AGRICULTURAL EXHIBITION recently held in Jeremie obtained a very gratifying success; a large number of people came from the surrounding country to view the many interesting exhibits.

Le Matin, a daily Haitian newspaper, published in a recent edition a list of the 23 new members of the BOARD OF AGRICULTURE of the commune of Port au Prince who have just been appointed by the National Government.

HONDURAS.

During the middle of April the fourth section of the TRUJILLO RAILWAY, between kilometers 46 and 66, was officially opened to public traffic. The line is being built by the Truxillo Railroad Co., which has already begun work on the fifth section.

According to press reports the rich GOLD AND SILVER MINES of the Opoteca region in the Department of Comayagua will soon be actively developed. An automobile road to Siguatepeque and the Yojoa is now under construction, by which communication with the Atlantic coast will be facilitated, allowing convenient shipping of minerals and other products from the Department.

The press of Honduras announces that the national congress has recently granted several OIL-WELL CONCESSIONS, which promise considerable activity in the field in the future.

The national congress has approved a bill submitted by the municipality of La Ceiba for the construction of a WHARF FOR LIGHT FREIGHT LOADING in the port mentioned, since that constructed by the Vaccaro Bros. Co. is accessible for large ocean-going vessels only. After the expenses of upkeep have been met, the profits will be distributed as follows: National treasury, 10 per cent; Vicente d'Antonini hospital of La Ceiba, 40 per cent; and 50 per cent to cover the cost of construction.

Late in May the distance from San Pedro Sula to Tegucigalpa, 100 kilometers, was made for the first time by AUTOMOBILE. It is expected that rapid transit between the cities will soon be conducted regularly.

On March 1, 1919, the President approved the bill authorizing the execution of the terms of the treaty for the protection of TRADE-MARKS signed at the Fourth International Pan American Congress in Buenos Aires August 20, 1910.

MEXICO.

An ONYX MINE, yielding a product said to be even superior in quality to that obtained from the famous mines in the State of Puebla, has been discovered in the vicinity of Tampico. The Puebla onyx is extensively used to ornament handsome public and private buildings of Mexico and other countries.

The National Government is to establish a MODERN LABORATORY equipped with all the necessary appliances for the analysis of oil exported through Tampico, to grade the oil, and determine export tariffs.

According to the secretaryship of commerce and industry, the HENEQUEN EXPORTATIONS from the State of Yucatán to the United States in 1918 amounted to 600,000 bales, valued at 48,000,000 pesos. In the same year 50,000 bales were exported to Argentina.

The IXTLE EXPORTATIONS to the United States from the State of Nuevo León in 1918 were valued at \$3,000,000.

During the first nine months of last year 185,064,982 pesos worth of METALS were produced in Mexico, distributed, according to the department of mines, as follows: Silver, 65,654,571; gold, 3,244,781; lead, 23,800,689; copper, 66,096,344; zinc, 9,036,233; antimony, 2,471,147; tin, 24,638; mercury, 785,297; tungsten, 787,274; graphite, 668,590; manganese, 459,321; and molybdenum, 36,038 pesos.

During the year 1918 the secretaryship of commerce and industry granted 30,912 MINING CLAIMS, of which 3,736 are in operation.

STEAMSHIP SERVICE between the port of San Diego, Calif., and Ensenada, La Paz, Guaymas, Topolobampo, and Mazatlan, Mexico, has been established.

As a stimulus to commercial development and activity the secretaryship of industry, commerce, and labor has published a LIST OF ARTICLES that may be exported from Mexico and those which may be imported.

The National Government has recently canceled 22,000,000 pesos worth of expired LAND GRANTS, and will divide the territory among communities which need additional space.

The Mexican press announces that two archæologists from the United States in exploring the territory of Quintana Roo discovered a RUBBER FOREST 20,000 hectares in extent, which will undoubtedly become a source of considerable revenue to the Government.

According to press reports from Pachuca, capital of the State of Hidalgo, very rich veins of PLATINUM have been discovered in the vicinity. Several mining companies of the section are planning to invest large sums in its exploitation.

Authorization has been granted by the secretaryship of industry and commerce for enlarging the MEXICAN COMMERCIAL

MUSEUM by adding six halls, containing examples of the three natural kingdoms. To this end the governors of the several States and Territories have been requested to cooperate by contributing collections of plants, minerals, and animals.

RAPID TRANSPORTATION SERVICE is soon to be established between the cities of San Antonio, Tex., and Mexico, which will greatly facilitate commercial intercourse between the two countries.

Since freight shipping between the United States and Mexico has increased considerably within the past few months, the general directorate of the national railways of Mexico has reestablished the TRAFFIC MANAGEMENT SERVICE, naming Señor Antero C. Roel for the office.

Late in May of the present year work was commenced on PAVING the streets of Puebla. Funds for the purpose were subscribed by business men of the city who desire to have Puebla modern in every respect.

A FLOWER, PLANT, FRUIT, AND VEGETABLE CONGRESS was held June 30-July 10 at the nursery in the town of Coyoacán. The secretaryship of agriculture and industry invited all the florists and horticulturalists of the Republic to attend the exposition.

NICARAGUA.

The National Government has signed a contract with Señor D. S. Wuescher, the representative of the Wawa Commercial Co., for the construction of a RAILWAY which, from a point on the Cucalaya River, follows the course of the Bambana and Oconguas Rivers and terminates in the Pis Pis mining region. The total length of the projected line is 75 miles, but since 40 have already been constructed, only 35 remain for the company to complete. It is expected that the new road will benefit the southern part of the Republic to a marked degree, giving rapid transportation to the Atlantic. The Cucalaya River is navigable for 10 miles from its mouth to the point from which the railroad will depart, and from Pis Pis to the Atlantic communication is made comparatively easy because the river is navigable for boats of great draft as far as the mining territory. Among concessions which the Government is making to the company is the ceding of the 40 miles of railway already constructed, a strip of land both sides of the track, and 500 hectares of undeveloped land for every \$20,000 which the company invests in the work.

The United States firm, "The Gold Mines Co.," has contracted for the labor of 20 EXPERT MINERS from the United States to aid in the exploitation of property held by it in Nicaragua.

The León-Matagalpa AUTOMOBILE HIGHWAY was opened to the public the middle of April.

Señor Manuel Rigüero has signed a contract with J. Williams, an aviator of the United States, for AERIAL TRANSPORTATION OF CORRESPONDENCE between Honduras, Nicaragua, and the port of New Orleans. Trips will be made weekly.

AUTOMOBILE STAGE SERVICE between the city of Diriamba and the port La Boquita, a popular bathing place on the Pacific coast of Nicaragua, has been established. The trip is made in about two hours.

The National Government has signed a contract with Señor Trinidad Lacayo, in which the latter agrees to send two Filipino experts and also some abacá plants to introduce the use and method of cultivating this plant, and the MANUFACTURE OF ABACÁ GOODS AND HATS. The manufacture of various articles from the fiber of the pineapple leaf will also be demonstrated, as the industry has never been exploited in Nicaragua.

PANAMA.

According to the terms of a contract signed by the secretary of industry and public works, Señor Rodolfo Chiari has agreed to establish a SUGAR FACTORY, with machinery, equipment, steel and wood buildings, stock, cane plantations, ovens, and all the apparatus necessary in an establishment of the capacity required to refine a yearly crop of 250 hectares, on his ranch, "La Estrella," in the Province of Cocle. Señor Chiari also contracts to have at least 100 hectares of sugar cane under cultivation within a year and a half, and the remainder two years and a half later; to produce and place sugar upon the market one year after the contract is accepted; and to train two persons from every Province in the most modern scientific methods of sugar refining. The Government, in turn, agrees to consider the enterprise a public utility, permitting free importation of machinery for the factory, as well as apparatus, implements, etc., and to exempt it from national and municipal taxes for a period of 10 years.

By a law of March 7 of the present year the national assembly authorized the President to appropriate a sum not to exceed \$100,000 for the establishment of AGRICULTURAL COLONIES of Caucasian immigrants, preferably from the Canary Islands or Puerto Rico; to supervise and advise with natives of the countries from whence they come concerning the settlement of any immigrant who desires to become a landholder; and to protect and locate the immigrant who needs aid in establishing himself. For the purposes of the new law any individual under 50 years of age, married or single, who enters the country for agricultural purposes, shall be considered such an immigrant.

Late in May a representative of the well-known Goodyear Tire & Rubber Co. of Akron, Ohio, arrived at Colon to establish a general

warehouse and distributing plant for the products of the company, the territory to include Central and South America.

A recent law of the national assembly amends and makes further additions to that of 1917, concerning the importation, sale, and use of FIREARMS in the Republic.

PARAGUAY.

In response to a ruling of the ministry of the treasury, the general customhouse directorate will make the following requirements in the IMPORTATION AND EXPORTATION OF PRODUCTS: (a) In every customhouse invoice covering machinery, the number of machines, horsepower, use, and the net and gross weight must be set forth; (b) exports, such as extract of beef, canned meats, and other forms of meat that are shipped in heavy parcels, shall be accompanied by a declaration of the gross and net weights; and (c) every package destined for exportation shall be labeled "República del Paraguay."

The FOREIGN COMMERCE during the first quarter of 1919 amounted to 2,015,332 pesos (peso = \$0.964 United States gold). Of this amount, 863,341 pesos were imports and 1,151,991 exports, leaving a balance of 288,650 pesos in favor of Paraguay.

A Paraguayan agriculturist advocates the extensive cultivation of the WILLOW, considering its many species of great importance commercially, and as it is very hardy, it can resist drought, locusts, and intense heat, and begins to be profitable soon after it is set out, so that the harvest is a very simple process. Furthermore, it is rapidly spreading in the country, and coming into more general use. There are already eight factories which use it in the manufacture of wicker furniture, etc., requiring the importation of 700,000 kilograms of the product annually, which might easily be raised in Paraguay.

PERU.

According to press reports from Lima the Italian Transatlantic Co. inaugurated on June 15 last a freight and passenger STEAMSHIP SERVICE between Genoa, Marseille, Barcelona, Callao, Mollendo, and Valparaiso, via the Panama Canal, sailings to be made every 45 days.

In view of the fact that the Peruvian Salt Co. has recommended that the proportion of rice for domestic consumption, established under a decree of March 14 last, be modified, the executive power has decreed that rice growers shall be required to sell to that company 20 per cent of the unhusked rice of the present year's crop. Rice sent to the mill intended for seed is exempt from this provision, provided the quantity does not exceed 10 per cent of the deposit, but a statement in writing that it is for seed purposes must be given the company before sending it to the mills.

The director of public works has contracted in the United States with the Vulcan Steel Products Co. for the purchase of RAILWAY MATERIAL to the amount of \$300,000. Included in this material are 1,100 tons of steel rails for the Huancayo to Ayacucho Railway and 1,300 tons for the branch road from Chuquicara to Cajabamba.

At the suggestion of the mayor of Lima the provincial council proposes to establish in that city WEEKLY FAIRS for the purpose of lowering the prices of articles of prime necessity. The railways will cooperate in this work by giving special facilities for hauling produce to be sold at the Sunday fairs which it is proposed to establish.

The Official Gazette of April 14 publishes the complete text of the law of the national congress authorizing the President to organize among the farmers of Peru a company with a capital of 200,000 Peruvian pounds (Peruvian pound=\$4.8665) to engage in the exploitation of GUANO. The capital of the company is to be represented by shares of £1 each, redeemable in not less than five years.

SALVADOR.

According to press reports MINING IN SALVADOR offers greater opportunities for profitable investment at the present time than any other industry of the country, since its development has been confined on a small scale to the eastern part of the Republic, notwithstanding the fact that in the western part of the country there exist large deposits of ores, which, if properly worked, could, it is said, be made to pay handsome profits. The district of Metapan is one of the richest mining zones of Salvador, the following ores abounding at and in the neighborhood of El Brujo, Valle de San Juan, El Caliche, and San Casimiro: Copper, iron, lead, silver, nickel, and platinum. Analyses of some of these ores made in England and France gave excellent results and show that they exist in paying quantities. The ores of this region are found on the surface, and their richness increases with depth. In exploiting these deposits electric current could easily be obtained from the Lempa River, which, with the exception of El Brujo, traverses the entire region. Water power is available in El Brujo zone from the falls of the Langiatud River, which, it is estimated, could develop current up to 100 horsepower. Timber is abundant, and plenty of labor is available, inasmuch as that part of the country is thickly populated. The climate is good and healthful. The region referred to is reached by the Acajutla to Santa Ana Railway, and will later be crossed by the Pan American Railway, which, after completion from Cojutepeque to San Salvador, will continue over the track of the Santa Ana to Metapan Railway and from thence to the Guatemalan frontier, via El Brujo, until it connects with the Puerto Barrios Railway, thereby placing this mining zone within a few hours of both Atlantic and Pacific coast terminals.

An executive decree of May 5 last authorizes IMPORTS OF LUMBER, sheet iron, Roman cement, and other construction materials free of duty, and specifies the customs expenses which must be paid.

Two residents of the town of Santa Rosa, Department of Union, have denounced before the proper authorities a vein of ore containing GOLD AND SILVER which they discovered on the Jacote lands in the canton of Copetillos. The vein, which has been named Buena Vista, is a meter and a half wide and runs from north to south. Samples taken therefrom indicate that the ore is of fine quality.

URUGUAY.

During the latter part of June last a JAPANESE COMMERCIAL COMMISSION arrived in Uruguay from Brazil on an investigation and propaganda trip. The delegates were well received in commercial circles, showed evidence of being highly satisfied with the commercial conditions of the country and manifested the belief that they can easily establish and with excellent results an interchange of trade between the two countries. The delegates recommend the establishment of Uruguayan consulates in Japan and of Japanese consulates in Uruguay, thereby enabling the merchants of the two countries to quickly obtain official commercial information and trade statistics should they so desire. Press reports are to the effect that a steamship line is soon to be in operation between Japanese and Rio de la Plata ports.

The department of industry has ordered that a record or registration be made of orders for henequen, or BINDER TWINE, placed by the farmers and merchants of the country. This registration is in charge of the intermediators of the official seed commission, and will be distributed and disposed of by that body for cash or on time payments.

On labor day on May 4 last the National Stock, Agricultural, and Industrial EXPOSITION, under the direction of the rural association of the department, was opened to the public in the city of San Jose. In the stock section, 116 head of cattle, comprising the principal breeds found in Uruguay, were exhibited, as well as choice lots of sheep, horses, and hogs. The Department of San Jose had 225 exhibits in the cereal section, indicating the development of grain cultivation in the Republic. The industrial section was patronized by the principal manufacturing concerns of Montevideo and was visited by large numbers of people. On the same date the NATIONAL HIGHWAY from San Jose to Montevideo was opened to public traffic, greatly facilitating communication between these two places.

In connection with the purchase by the State of the URUGUAYAN

EASTERN RAILWAY it has been officially announced that the Tramway & Northern Railway are also to come under the same management. The department of public works proposes to extend the Eastern Railway from Punta del Este to Maldonado, a distance of about 5 kilometers, thereby greatly facilitating traffic, especially in the summer.

Federico Giró, jr., has been appointed by the Uruguayan Government to study the **LIVE-STOCK MARKETS** of the United States and report upon the same.

VENEZUELA.

According to mercantile and maritime statistics covering the first half of 1918, and which have just been published by the department of finance, the value of **IMPORTS** was 40,002,032 bolívars (bolivar = \$0.193). These imports in bolívars by customhouses were as follows: La Guaira, 26,136,440; Maracaibo, 4,667,743; Puerto Cabello, 5,888,838; Ciudad Bolívar, 1,603,931; Carupano, 1,000,467; Puerto Sucre, 100,568; La Vela, 241,132; Cristobal Colon, 310,438; Pampatar, 39,513, and Tachira, 12,962. The value of merchandise imported through the customhouse at Maracaibo in transit for Colombia amounted to 415,424 bolívars. The total value of the **EXPORTS** were 51,337,724 bolívars. The value of these exports in bolívars by countries was as follows: United States, 25,512,419; Curazao, 8,011,913; Trinidad, 4,388,583; Spain, 2,807,537; France, 2,705,182; Holland, 2,397,634; Great Britain, 1,709,952, and other countries, 3,806,504. The excess of exports over imports was 11,335,692 bolívars. The coastwise trade consisted of imports, 76,313,988, and exports 73,202,481 bolívars.

During the six months from January 1, 1918, to June 30, inclusive, 145 **STEAMERS** and 242 sailing vessels, representing 266,940 tons, entered Venezuelan ports, and 237 steamers and 930 sailing vessels, representing 280,699 tons, cleared from said ports.

The Department of Fomento has granted to Luis A. Olavarría a concession for 90 years in which to exploit **GOLD DEPOSITS** situated in the jurisdiction of the municipality of Casacoima in the federal territory of Delta Amacuro.

An article recently published in one of the newspapers of Caracas shows that the **FISHING INDUSTRY** offers great opportunities for development, inasmuch as it can be carried on over the entire coast line and in the large river system of the Republic, all of which abound in edible fish.

A law promulgated on June 4 last prescribes rules and regulations concerning the manufacture, sale, and carrying of **ARMS** throughout the Republic.

ECONOMIC^{AND} FINANCIAL AFFAIRS

ARGENTINA.

On April 30 last the sealed GOLD ON HAND in the Conversion Bank amounted to 279,465,449 gold pesos (gold peso = \$0.9648), while gold on deposit in the legations of the Republic was 103,742,188 gold pesos, or a total of 383,207,637 gold pesos.

In 1918 the MORTGAGE RECORDS in the federal capital showed the following values in pesos, currency: Mortgages recorded, 83,-788,593; mortgages canceled, 136,163,891. In 1913 the mortgages recorded amounted to 261,982,000 pesos; in 1914 to 177,477,000 pesos; in 1915 to 88,030,000 pesos; in 1916 to 73,010,000 pesos; and in 1917 to 69,451,000 pesos. The mortgages canceled in 1913 represented a value in pesos of 118,099,000; in 1914, 97,752,000; in 1915, 98,081,000; in 1916, 124,223,000; and in 1917, 133,540,000.

During the fiscal year just passed the UNITED QUEBRACHALES CO., a corporation with headquarters in Buenos Aires, earned 2,028,964 pesos currency. This company, which has holdings in the Argentine Chaco and the Republic of Paraguay, prepared for shipment during the past year 324,867 sacks of extract of quebracho.

The balance sheets of 1918, published by a number of ARGENTINE CORPORATIONS, show that the average earnings during that year were 15 per cent on the capital invested. This clearly shows that from an investment viewpoint the Argentine Republic continues to be a country in which large returns are to be had on capital.

The revenues of the Argentine Government from EXPORT DUTIES, collected during the period from January 21, 1918, to December 31 of that year, amounted to 24,000,000 gold pesos, about two-thirds of which were derived from exports on wool.

The sixteen ACCIDENT INSURANCE companies in operation in Argentina in 1918 issued in the federal capital during that year 1,697 policies protecting 164,655 workmen, whose insured wages amounted to 100,718,006 pesos. The premium on these policies aggregated 1,762,948 pesos, and the payment of indemnities amounted to 753,990 pesos. The policies issued in the provinces numbered 8,865, covering 145,196 workmen with salaries of 73,205,863 pesos. The premiums collected were 2,160,154 pesos, and the indemnities paid amounted to 699,266 pesos.

BRAZIL.

According to official data the total assets of BRAZILIAN BANKS, which on December 31, 1916, amounted to 4,031,840 contos (paper conto = \$267.50), rose to 4,527,881 contos on the same date of 1917, to 5,912,137 contos on December 31, 1918, and to 6,636,323 contos on February 28 of the present year. The profits of the Bank of Brazil in 1918 were 19,780 contos. The reserve fund of this bank at the present time is 7,385 contos, and its total business in 1918 aggregated 1,182,245 contos—a sum representing nearly one-fifth of the banking business of the Republic.

Under executive decree No. 13584, dated May 7 last, the YOKOHAMA SPECIE BANK (LTD.) is authorized to do business in the country, to establish a branch at Rio de Janeiro and agencies in the cities of São Paulo and Santos. The capital of this bank is 48,000,000 yen (yen = \$0.4985), divided into shares of 100 yen each.

The LONDON AND RIVER PLATE BANK has been authorized to establish a branch at Porto Alegre and agencies at Rio Grande and Pelotas.

During the last two months the following BRANCH BANKS were established in Brazil: Bank of Holland & South America, Bank of Portugal & Brazil, and the Guaranty Trust Co. of New York in São Paulo; National City Bank of Recife and the National Bank of Commerce of Porto Alegre at Curitiba with agencies at Rio Negro and Porto de Union, State of Parana. The Popular Bank of Rio Grande do Sul and the Industrial and Agricultural Bank have been established at Porto Alegre. The National Ultramarine Bank of Brazil has opened a branch in London with the object of developing Brazilian commerce in Europe.

COLOMBIA.

By decree No. 957, of May 8, 1919, the President has provided that while the ban on exportation of gold coins remains in force in Europe and the United States, no one may export GOLD IN COIN, IN BARS, DUST, or any other form without permission from the Government. Travelers who sail from Colombian ports to foreign parts, however, may carry as much as 200 pesos in gold coin with them upon the payment of regular duties. The same decree establishes a tax of 5 per cent on the value of platinum exported, while the former duties on gold will remain in force, for the exportation of which provisions are stipulated and a board established in the capital of the Republic, presided over by the ministry of the treasury and composed of five members elected from the chambers of commerce of Bogota, Barranquilla, Medellin, Cali, and Manizales.

The President has decreed the exemption from postal charges of PACKAGES OF COINED GOLD imported into the country, such packages to be carried free from the office in which they are received from foreign countries to destination.

By law No. 16 of 1919 the assembly of Cundinamarca authorizes the departmental government to contract a domestic or foreign LOAN to the amount of 5,000,000 pesos, either independently or in agreement with the National Government; to provide the securities or guaranties necessary; and to fix the rate of interest and further conditions compatible with commercial usages of the present time and departmental interests. The loan will make possible the extension of the Sabana Railway to the Lower Magdalena and its subsequent prolongation to the Meta River. The departmental government is authorized also to buy the rights now held by the National Government in this railway enterprise and to fix the conditions for the latter contract.

CUBA.

On June 1 a branch of the INTERNATIONAL BANK OF CUBA was organized in the city of Matanzas. This bank, founded only a year and a half ago, has already 37 branches and over 13,000 depositors in the island.

ECUADOR.

The financial agents of Ecuador in London, Glyn, Mills, Currie & Co., have published the fact that they are ready to pay the coupons of the GUAYAQUIL-QUITO RAILWAY BONDS due between January 2, 1917, and the same date of the present year. A London daily reports that preferred stock in the railway company is quoted at 94 per cent on March 15, 1919, and common stock at $47\frac{1}{2}$ and $47\frac{1}{2}$ per cent; and a Quito newspaper comments that this statement proves that Ecuadorian credit abroad is being firmly reestablished now that the war has closed and the Government can meet obligations promptly.

Since the banking establishment "Banco Suramericano," recently founded in Quito, has the amount of capital required by law, the President of the Republic authorized it to open on May 8, 1919.

GUATEMALA.

By law No. 1010 of April 29, 1919, the legislative assembly approved the NATIONAL BUDGET for the fiscal year beginning July 1 of the present year and ending June 30, 1920, amounting to 81,119,294 pesos currency, distributed as follows: Administration and justice, 7,885,530; foreign relations, 3,539,356; treasury, 4,974,702; public credit, 23,139,148; industry, 7,514,482; public instruction, 8,419,547; war, 9,770,611; pensions, 875,917; and for

reconstruction of Government buildings, 15,000,000 pesos. The appropriation for public instruction shows an increase of 800,000 pesos, to be used in increasing the salaries of primary teachers.

The TAX ON BEER authorized by presidential decree in July, 1918, brought a revenue of 578,447 pesos in six months, from July to December of the past year.

On April 12 of this year the President signed a law authorizing a PLAN OF ARBITRATION by which the municipality of Guatemala City shall meet its obligations.

The President has granted the municipality of Guatemala City a LOAN OF 600,000 pesos for repairs to be made on the Mixco and Pinula aqueducts.

HAITI.

The Banque Nationale d'Haïti (National Bank of Haiti) has been authorized by the council of state to issue BANK NOTES to the amount of 20 millions gourdes (gourde=\$0.20). Notes will be of the following denominations: 1-gourde, 7,500,000; 2-gourde, 5,000,000; 10-gourde, 5,000,000; 20-gourde, 2,500,000.

From an authorized source it is announced that the ROYAL BANK OF CANADA will establish a branch in Port au Prince within the next few weeks. At first a building will be rented, but the bank proposes to buy a site in a central location upon which a fine building will be erected.

HONDURAS.

In conformity with the terms of article XV of the Proceedings of the Fourth International Pan American Conference held in Buenos Aires August 20, 1910, and ratified by the national congress on January 30, 1913, the President on March 1 of this year promulgated the general budget which the Director of the Bureau created in Habana for the protection of trade-marks and titles, submitted to the consideration of the nations which, in accordance with Article XIII, ratified the Convention. The payment of \$278.72 gold, Honduras's share in the expenses of installation and the first year of service of the American International Bureau, is authorized.

MEXICO.

According to statistics recently submitted to the press by the secretaryship of the treasury and public credit, the FOREIGN DEBT of the country, exclusive of interest, amounts to 286,944,251 pesos (pesos Mexican=\$0.50 United States gold), while the interior debt totals 138,795,550 pesos and the total interest on both up to June 30, 1919, was 103,832,284 pesos, or 68,002,939 pesos on the exterior and 35,829,345 on the interior. Hence the total of the public debt with interest is 529,572,085 pesos.

The secretaryship of the treasury has abrogated the presidential decree which required mining companies who exported gold and silver ore to the United States to reimport 25 per cent of the refined metal, thus permitting FREE EXPORTATION OF METALS in the future.

PANAMA.

In accordance with authorization of a law of the national assembly the President procured the services of the well-known American financier and accountant, Addison T. Ryan, to advise in the REORGANIZATION OF THE PUBLIC TREASURY of Panama, as he had previously done in the Republic of Haiti. Mr. Ryan, who was recommended for the office by the Government of the United States, began investigations early in February of the present year, and according to unanimous press reports the results of his labors are already being happily felt throughout the country, since funds are collected promptly and various bureaus have been modified to the advantage of all concerned, so that obligations may be met by the treasury and the administrative offices conducted efficiently. From July 1, 1919, the treasury is to be directed by a branch of the International Banking Corporation, which will establish agencies in various parts of the Republic. At present Mr. Ryan is engaged in drawing up the budget of receipts and expenditures for the fiscal year beginning July 1.

Acting in accord with authorization contained in a law of the national assembly, the President obtained the services of Dr. Clarence J. Owens, the American expert in banking affairs, especially agricultural banking institutions, with a view to founding a NATIONAL AGRICULTURAL BANK. Dr. Owens reached the Isthmus about the middle of May, accompanied by Boris A. S. Aronow, Thomas R. Preston, Robert M. Estes, Emilio M. Amores, and Charles H. Baker, to undertake an examination of economic and agricultural conditions in the Republic and report concerning the establishment of a bank of the nature indicated. After collecting interesting data in Panama the Owens commission went into the interior of the country, leaving E. M. Amores in charge of the office at Panama City. Dr. Owens urges the founding of a Pan-American commercial school in Panama, to which students from the United States and Latin American countries will be sent.

The President has been authorized by the National Assembly to contract a LOAN OF \$1,000,000 for the payment of national debts that are due.

The SALARIES of the supreme judge, minister of state, and other officials were fixed by law No. 37 of March 17, 1919.

PARAGUAY.

By resolution No. 372, of February 11, 1919, the ministry of the treasury fixes the RATE OF GOLD EXCHANGE at 1,795 per 100 in the payment of import duties and tariff on goods destined for internal consumption.

The Financial and Commercial Review ("Revista Financiera y Comercial") of Buenos Aires reports the following statistics with regard to the state of PARAGUAYAN BANKS on December 31, 1918: Banco Mercantil—deposits in gold, 1,460,000 pesos (gold pesos=\$0.964 U. S.); deposits in currency, 54,710,000 pesos; savings accounts, in pesos, gold, 680,000, paper, 31,860,000; loans, gold, 2,590,000, paper, 85,490,000; cash on hand, gold, 630,000, paper, 18,070,000. Bank of the Republic—deposits in gold, 1,780,000, paper, 44,700,000; savings, gold, 200,000, paper, 4,310,000; loans, gold, 3,870,000, paper, 27,970,000; cash on hand, gold, 4,740,000, paper, 25,940,000. Bank of Spain and Paraguay—deposits, gold, 750,000, paper, 22,920,000; savings, gold, 250,000, paper, 7,070,000; loans, gold, 720,000, paper, 29,960,000; cash on hand, gold, 280,000, paper, 10,140,000. Agricultural Bank—deposits, currency, 2,580,000; loans, paper, 25,580,000; cash on hand, currency, 3,430,000. The capital of the Mercantile Bank is 25,000,000 pesos, paper, with a reserve fund of 14,100,000; that of the Bank of the Republic is 4,000,000 pesos, gold, with a reserve fund of 1,500,000 gold and 300,000 paper; that of the Bank of Spain and Paraguay is 8,980,000, paper, with a reserve fund of 880,000; and that of the Agricultural Bank is 34,590,000, paper, with 1,730,000 reserve. Including the assets of the Banco Constructor (with a capital of 1,550,000 pesos, paper), the Commercial Credit fund (1,550,000 pesos, paper), the Industrial & Commercial Agency of Villarrica (1,360,000 pesos, paper), and the office of exchange, which received 10,000,000 pesos in bills from the Government and 830,194 pesos, gold, and has a reserve amount of 3,310,000 pesos, paper, the total of the principal accounts of the institutions enumerated at the end of 1918 were as follows: Capital invested, 4,830,000, gold, and 83,564,000, paper; reserves, 1,500,000, gold, and 20,570,000, paper; deposits, 4,165,000, gold, and 126,060,000, paper; savings, gold, 1,328,000; paper, 43,280,000; loans, 7,177,000, gold, and 174,227,000, paper; cash on hand, 4,723,000, gold, and 59,936,000, paper. These figures demonstrate the fact that Paraguay has developed rapidly within the past four years, not only commercially, but also in the amount of private savings accounts, since bank deposits have more than doubled since 1914.

By presidential decree No. 9153, regulating articles 38 and 39 of law No. 236, the TAX ON EVERY HEAD OF CATTLE sold

to meat-packing or refrigerating establishments was fixed at 2 pesos, gold, and regulations for its payment were set forth.

A tax of 2 pesos, gold, was fixed upon the EXPORTATION of every bull, of whatever age, through the customhouses of the Republic.

PERU.

The Bank of Peru and London of Lima has established a SAVINGS DEPARTMENT and will accept deposits of not less than 1 sol (sol=about 50 cents), said deposits to bear interest at the rate of 5 per cent per annum. The bank will also open saving departments in its branches at Callao and other parts of the Republic.

URUGUAY.

An executive decree of April 21 last regulates the law of February 26 of the present year concerning BONDS FOR THE SANITATION OF INTERIOR CITIES. These bonds bear interest at the rate of 6 per cent per annum and have a 1 per cent annual accumulative sinking fund. The bonds are to be of the denominations of 1,000, 500, and 100 pesos each (peso=\$1.0342), are to be consecutively numbered, and will bear the signatures of the minister of finance, the general auditor of the nation, and the director of the office of public credit. Bonds payable to bearer are transferable on delivery and bear interest at the rate of 3 per cent from the date on which issued.

In 1918 the BANK OF THE REPUBLIC did a cash turn-over business of 334,975,662 pesos, as compared with 282,026,304 pesos in 1917. The number of drafts drawn last year by the main offices and agencies on branch offices was 18,977, valued at 30,324,149 pesos, as compared with 17,355 drafts, valued at 26,200,643 pesos, in 1917. In 1918 the amount of the drafts of the branches on each other was 33,137,244 pesos, as compared with 26,905,920 pesos in 1917. The accounts current in 1918 amounted to 180,601,906 pesos, as compared with 126,591,056 pesos in 1917.

The executive power has authorized the mining economic administrative board to negotiate a LOAN of 100,000 pesos with the Bank of the Republic, to be used in the following works: Water pipes, 20,000; repairs to the public market, 10,000; construction of a public highway and plaza, 30,000; rural road construction, 31,000; purchase and installation of storage yards at Battle y Ordoñez, 8,000; and the installation of a municipal laboratory, 1,000.





INTERNATIONAL TREATIES

BRAZIL-VENEZUELA.

Under an exchange of notes, dated Caracas, June 3, 1919, the Governments of Brazil and Venezuela concluded an AGREEMENT CONCERNING DIPLOMATIC POUCHES, under the terms of which the postal pouches used by the respective departments of foreign relations of the two Governments and their legations will enjoy the exemptions and guaranties accorded by the postal authorities of the countries in interest to cabinet mail. Said administrations will specify the manner of receiving and delivering the pouches as well as the maximum weight and volume of the same. Until otherwise ordered the maximum weight is to be 15 kilos, and the maximum dimensions 15 centimeters in length, 30 in width and 50 in height. The agreement became effective on the date on which it was concluded.

GUATEMALA-UNITED STATES.

A CONVENTION CONCERNING COMMERCIAL TRAVELERS was concluded in Washington on December 3, 1918, between the Governments of the United States and Guatemala. Said convention differs from a similar convention made between Uruguay and the United States on August 27, 1918, by the following addition to Article I: "In case either of the High Contracting Parties shall be engaged in war, it reserves to itself the right to prevent from operating within its jurisdiction under the provisions of this treaty, or otherwise, enemy nationals or other aliens whose presence it may consider prejudicial to public order and national safety," and by rewriting of Article VII, which reads: "Peddlers and other salesmen who vend directly to the consumer, even though they have not an established business in the country in which they operate, shall not be considered as commercial travelers, but shall be subject to the license fees levied on business of the kind which they carry on.

PANAMA-UNITED STATES.

On February 8, 1919, the United States and Panama concluded a COMMERCIAL TRAVELERS CONVENTION identical in every respect to that made between Guatemala and the United States on December 3, 1918.

LEGISLATION

ARGENTINA.

The executive decree of April 26 last, which repealed the order permitting stores to remain open on Sundays, reestablished the decree of December 22, 1916, concerning the closing of said establishments on Sunday.

Under date of April 26 last the President signed a decree concerning the **WORK OF WOMEN AND CHILDREN**. In accordance with said decree every hall in stores, warehouses, millinery and other commercial establishments must have chairs, provided with backs, equal in number to two-thirds of the female workers employed.

DOMINICAN REPUBLIC.

At the instance of the secretaryship of industry and communications, the military government of the Republic has engaged the services of James R. Jones, of the Bureau of Mines at Washington, to carry out a **RADICAL CHANGE OF THE MINING CODE**. Mr. Jones has reached the city of Santo Domingo and commenced his new duties.

On April 10, 1919, the military government passed a **PROPERTY TAX LAW** which went into effect July 1. The law levies a tax on permanent improvements to property and on land.

Owing to the fact that the **LAW CONCERNING CONCESSIONS FOR STATE PROPERTIES**, passed June 5, 1905, has not met requirements satisfactorily, the military government of the Republic has declared its suspension until a new law may be promulgated.

GUATEMALA.

Law No. 999 of the national legislative assembly modifies Articles 234 and 445 of the **PENAL CODE**, the former to read in the following manner: The following persons shall be liable to arrest on a charge of crime: (1) The owners, managers, or employees of establishments open to the public, in which games of chance or gambling are conducted; (2) the bankers or owners of gambling houses or games of chance; and (3) the sellers or distributors of lottery tickets that are unauthorized. The persons who enter such establishment for the purpose of playing and those who are found taking part in such games shall be subject to imprisonment for six months. Article 445 is to read as follows: Persons found in any public place outside

of those mentioned above who encourage or take part in games of chance, except such as are merely for pastime and for recreation, shall be subject to a fine of from 25 to 100 pesos.

HAITI.

Under date of June 7, 1919, the text of the law reorganizing the PRIMARY SCHOOLS was made public.

Le Moniteur, the official newspaper, published in its edition of May 7, 1919, the text of the law ratifying the convention agreed to by the Haitian Government and the National Bank of Haiti concerning the WITHDRAWAL OF PAPER MONEY now in circulation and the EMISSION OF BANK NOTES. The convention was published in extenso in the same issue of Le Moniteur.

HONDURAS.

On March 22 last the TRADE-MARK LAW, which repealed the law of March 7, 1902, was promulgated. According to this law the following trade-marks can not be registered in Honduras: (a) Those identical or similar to those already registered in favor of other parties, or whose principal characteristics are so pronounced as to cause confusion at first sight; (b) coats of arms, emblems, or government, municipal, or public corporation seals, either domestic or foreign; (c) generic and geographic names, or the names of persons and objects, except when accompanied by drawings or phrases describing same; (d) the names of photographs of living persons without their consent; (e) all signs or words which may be contrary to good morals or which ridicule corporations or persons in the opinion of the patent and trade-mark office or the secretary of Fomento. To obtain the exclusive right to the use of a trade-mark, the name of the petitioner must be stated in the request, as well as the name and place of manufacture or the headquarters of the business, together with a detailed description of the trade-mark, stating whether it has been registered or not in other countries, the class of the trade-mark, and the name of the products to which it applies. The registration of the trade-mark must be under the exclusive responsibility of the petitioner and without injury to third parties. The registration of a trade-mark requires the payment to the Government once only of a tax of 50 pesos silver and is valid for 10 years. Should conventions or international treaties exist concerning this subject, the registration of trade-marks must conform to the provisions stipulated therein.

PANAMA.

On March 26 the national assembly passed a law concerning ORAL REPORTS IN CRIMINAL PROCEDURE, to go into effect after

the President's approval was obtained on March 29, and it was published in the Official Gazette of April 16.

According to legislation of March 13, for the registration of manuscripts or public documents in which PRIVATE OR COMMERCIAL ORGANIZATIONS are constituted or chartered, a tax of 25 cents per \$1,000 capital or fraction thereof must be paid, up to a capital of \$5,000,000, above which an additional charge of 10 cents per \$1,000 or fraction thereof is to be collected.

PARAGUAY.

A recent law of national congress provides for a TAX ON CORPORATIONS, by which the invested capital of such companies shall be taxed as follows: From 50,000 to 100,000 pesos, 0.50 per 1,000; from 100,000 to 200,000, 0.60 per 1,000; from 200,000 to 500,000, 0.70 per 1,000; from 500,000 to 1,000,000, 0.80 per 1,000; and over 1,000,000, 1 peso per 1,000. Companies with a capital of less than 50,000 pesos are exempt from taxes. In all other cases the tax will be collected on the part of the capital over and above 50,000. It will be collected yearly, based on the capital held January 1, and in one payment. When a company owns property in the country and also in other countries, the tax will be levied only on the tangible or intangible property within the country. From the capital upon which the tax is to be collected shall be deducted the amount of debts held against it, as positively proved, and the tax shall be paid before March 31 of every year. The remainder of the articles set forth the manner of declaring the capital.

A BILL RELATIVE TO A DIVORCE LAW has been submitted for the approval of national congress.

URUGUAY.

An executive decree of April 8 last prescribes the FORM OF CEREMONY TO BE OBSERVED BY DIPLOMATS on presenting their credentials. Under this decree the heads of diplomatic missions will submit their credentials to the President of the Republic, the minister of foreign relations being present, at a private audience arranged for beforehand. The diplomatic agent will be accompanied by the introducer of ministers. Military honors will be given by the government palace guard, but if the agent is an ambassador a garrison batallion or regiment will render the military honors.



PUBLIC INSTRUCTION AND EDUCATION

ARGENTINA.

On May 10 last the MEDICAL PREPARATORY SCHOOL was opened in the University of La Plata. A three years' course will be given in accordance with the plan now in force in the University of Buenos Aires. The laboratory, etc., of the medical preparatory school is to be used by other departments of the University of La Plata. The first year's course, for which there are about 200 applicants, will be taught during the present year. The school is under the direction of Dr. Pedro Belón, professor of anatomy, assisted by Dr. Greenway, professor of pathology, and by Dr. Scala, professor of botany.

The board of professors of the faculty of exact, physical, and natural sciences of the University of Buenos Aires decided early in May last to offer an annual ARCHITECTURAL PRIZE for the best plan submitted on a subject to be specially designated.

With the object of encouraging closer INTELLECTUAL RELATIONS between Argentina and Peru, Dr. Vicente H. Delgado, representing the University of San Marcos in Lima, visited the University of Buenos Aires about the middle of April last. Dr. Delgado has also been commissioned to make a report upon subjects of interest to the University of Lima, and especially those concerning secondary instruction.

A résumé of the SCHOOL CENSUS recently taken by the technical inspection shows that there are 234,804 children of school age in Buenos Aires—that is to say, between the ages of 6 and 14 years. Of this number there are in attendance at school 215,141, and 19,663 who do not receive instruction.

MEXICO.

Late in April 100 students of the National School of Agriculture left Mexico to accept the FREE SCHOLARSHIPS offered by Henry Ford in the University of Detroit.

Several oil companies, the majority being foreign firms, have appropriated the sum of 500,000 pesos (Mexican peso = \$0.50 United States gold) to be administered by the geological society and Mexican engineers' council in the establishment of a FREE SCHOOL OF

OIL ENGINEERS, where practical instruction will be given in drilling, in the chemical properties of oil, in geology, and engineering.

The Chamber of Commerce of Liverpool has invited the corresponding body of Vera Cruz to send a delegation of Mexican young men to England to study BRITISH COMMERCIAL METHODS, agreeing to provide remunerative work for the men.

DOMINICAN REPUBLIC.

The Chamber of Commerce, Industry, and Agriculture of Santo Domingo has established and is maintaining in the city two schools, day and night, in which free instruction is given in ENGLISH, SHORTHAND, AND TYPEWRITING. The day school is attended by young ladies and the night school by boys, in which 50 and 70 students, respectively, have registered. The organization is directed by Senor Alfredo Ricart y Olives, a prominent business man of the city.

NICARAGUA.

The President has arranged for the services of several PROFESSORS FROM THE UNITED STATES at the El Picacho Agricultural School.

The REGULATIONS which will obtain for students of dental surgery have been announced. Studies are to be divided into four groups of one year each, to begin May 1 and end late in February, the curriculum for students of dentistry being fixed also. The dental department will be under the supervision of the board of directors of the college of medicine, one member of which is to be a dental surgeon.

Senor Aníbal Ibarra Rojas, a Nicaraguan citizen, is studying international law at the University of Paris, at the instance of the United States Government, which pays his expenses in recognition of his services in the American Army.

PANAMA.

Among various modifications introduced in the CODE OF PUBLIC INSTRUCTION presented in a law of March 10 of this year are the following: 1. Primary instruction shall be obligatory for every child from 7 to 15 years of age; parents and guardians or heads of families shall be responsible for compliance with this ruling, under penalty of fines of 25 cents daily upon absence of the child concerned. 2. The secretaryship of public instruction is authorized to obtain instructors in technical branches from foreign countries in such cases as it may deem advisable. 3. Employees of the educational system may not be dismissed for political opinions held by them, or be obliged to serve electoral offices or give pecuniary contributions to political funds.

GENERAL NOTES

ARGENTINA.

The committee appointed by the law faculty of the University of Buenos Aires to prepare a program for the celebration in 1921 of the FIFTIETH ANNIVERSARY OF THE ARGENTINE CIVIL CODE and to render homage to its illustrious author, Dr. Dalmacio Vélez Sarsfield, recommends that comments be published on the code showing the changes it now requires, and that the works of Dr. Dalmacio Vélez Sarsfield, together with a model edition of the code compared with the edition of the Argentine Nation and the editions of 1870 and 1883, be published. It is also proposed to erect a monument in the new building of the law school to the author of the code.

Early in April last the Argentine section of the INTERNATIONAL LAW ASSOCIATION was organized, and the following officers chosen: Dr. Estanislao S. Zeballos, president; Drs. Leopold Melo and José Luis Murature, vice presidents; Dr. Alcides Calandrelli, general secretary; and Dr. Manuel Moyano, treasurer.

The board of directors of the Eastern Bank of Uruguay has sent a communication to the MINT in Buenos Aires complimenting it for its quickness and accuracy in coining 8,000,000 pesos for the institution.

Under the patronage of the minister of foreign relations and of the governor of the Province of Santa Fe, a meeting of the SECOND NATIONAL ANTITUBERCULOSIS CONFERENCE will be held in Rosario on September 6, 7 and 8, 1918. The organizing committee is composed of Drs. Clemente Álvarez, David Villa, Esteban Mazzini, and Marcos Steinsleger.

BOLIVIA.

A presidential decree of April 3, 1919, recognizes the Bolivian section of the INTERNATIONAL HIGH COMMISSION FOR UNIFORM LEGISLATION, appointing Sres. Carlos Calvo, Néstor Cueto V., José Mendieta, Juan Perou, Guillermo M. Morris, Casto Rojas, Jorge Sáenz, and Rafael Taborga as members, with the minister of the treasury as chairman.

A NEW WEEKLY paper with the title "La Evolución" has appeared in the city of Potosí, edited by a group of intellectual young men of the city.

A DIRECTORY OF BOLIVIAN LEGISLATION, written by Sr. Ernesto Palza S., has been published in La Paz.

Early in May the RADIO TELEGRAPH STATION of Cobija was made ready for public service. Its installation was provided for in a contract entered into between the National Government and the Marconi Company.

A recent ruling of the municipal council of La Paz declares the incorporation of the land now occupied by the Landaeta hospital, the public market, and the isolation hospital a public necessity, as well as the opening of CENTRAL AVENUE, which shall extend from the Flores market to the isolation hospital grounds. The law provides furthermore for the removal of the hospital and isolation hospital to other locations, the sale of their present sites at public auction, the proceeds of which shall be expended in the construction of municipal school buildings, a public market, a town hall, and for various other public works, as well as amortization of the municipal debt.

Sr. Don Emilio Bello Codecido, the new envoy extraordinary and MINISTER PLENIPOTENTIARY OF CHILE to Bolivia, was received in public audience by the President of the Republic on April 11, 1919.

AN AMATEUR RIFLE CONTEST was held May 24 and 25 in La Paz under the auspices of the Eduardo Abaroa Amateur Rifle Association. Each of the primary schools of the city was represented in the contest by five pupils under 15 years of age, chosen from the students enrolled this year.

BRAZIL.

Statistics for 1918 show that during that year 20,501 IMMIGRANTS, of which 12,531 were males, and 7,970 females entered the Republic through the ports of Rio de Janeiro, Santos, Paranagua, and Rio Grande. Of this number 8,182 were agriculturists, 735 artists, 7,694 laborers, and 3,890 were not classified.

Early in June last two commissions of government engineers left Rio de Janeiro for the State of Minas Geraes for the purpose of making a GEOGRAPHIC MAP commemorative of the centenary of independence, determine the boundaries between the States of Minas and Bahia, make an astronomic and topographic map of the Verde Grande, Verde Pequeno, Gaviao, and Contas Rivers, and a map of the strip which divides the waters between the Great Falls of Jequitinhonha and Mosquito Bar.

Work on the TELEPHONE LINES between the cities of the coast and of the interior is being rapidly carried on, and telephone communication has already been established between Sorocaba and Rio de Janeiro.

At the beginning of the present year there were 3,642 POST OFFICES in the Republic, as follows: Special offices, 5; first-class offices, 46; second-class offices, 225; third-class offices, 974; and fourth-class offices, 2,392. These offices employ 4,564 persons.

The sum of 30 contos has been set aside to defray the expenses of the SIXTH BRAZILIAN GEOGRAPHIC CONGRESS which is soon to meet in the city of Belló Horizonte.

According to press reports the *Jornal do Brasil*, *Correio da Manhã* and *O Imparcial*, daily newspapers of Rio de Janeiro, have reorganized their telegraphic service and have become members of the Associated Press of the United States.

On May 1 last the cornerstone of the building of the BOTAFOGO ROWING CLUB was laid with appropriate ceremonies.

The first Brazilian DENTAL CONGRESS was held in Rio de Janeiro from May 30 to June 12 last.

CHILE.

Adopting the most efficient modern methods of printing, *El Mercurio*, the well-known Chilean daily paper, recently imported a large GOSS SEXTUPLE PRESS from the United States, which it is using in the offices at Santiago. The press prints 36,000 copies of a 48-page paper per hour.

The Chilean press announces that a FRENCH MILITARY COMMISSION composed of 1 major, 8 officers, 28 noncommissioned officers, and 24 privates has arrived in the country to lecture on important military topics, such as organization, mobilization, and various tactics employed in the European war. The mission brought 24 high-power airplanes of various types, 12 bombing machines, 8 hydroplanes of the latest model, and a number of implements of warfare with it for demonstration purposes.

The 9th CHILEAN GENERAL SCIENTIFIC CONGRESS will be held in Iquique next September. According to present arrangements the congress will be composed of 11 sections—i. e., I, sciences and mathematics; II, astronomical sciences, seismography, meteorology, and geophysics; III, chemistry; IV, natural sciences; V, medical sciences; VI, sociology and political economy; VII, history and geography; VIII, pedagogy and allied subjects; IX, journalism; X, esthetics, fine arts, architecture, good manners; and XI, military, naval, and aeronautic sciences.

On April 26 the President promulgated a decree absolutely prohibiting the introduction or distribution of all kinds of ALCOHOLIC DRINKS in the nitrate district of the country.

The FOURTH CENTENARY of the discovery of Chile will be elaborately celebrated late in the present year.

During the coming September a RAILWAY CONGRESS will be held in Santiago which is expected to usher in a new era of railway development in the country.

COLOMBIA.

By law No. 38 of April 11, 1919, the minister of state is authorized to receive bids for the CARRYING OF DOMESTIC MAIL IN AIRPLANES over the following routes: From Bogotá to Barranquilla, calling at Manizales, Medellin, and Cartagena; from Bogotá to Pasto, stopping at Manizales, Cali, and Popayan; and from Bogotá to Cucuta, stopping at Tunja and Bucaramanga. Bids will be received November 20 of this year before the general administrator of the mails, to whom the minister of state grants the power to preside over the meeting, and procedure will be according to the instructions set forth by the ministry, as approved by the cabinet. Among other regulations the contractor agrees to carry correspondence and packages over the routes indicated in airplanes, dirigibles, etc., that shall provide the greatest measure of safety, stopping at such points as may be indicated by the Government whenever technical conditions of aviation permit, the trips to be made periodically on days stipulated by the Government, the time consumed in the trip to be agreed upon between the contracting parties, the contractor to be responsible for losses of correspondence or the value represented thereby, and to pay into the public treasury, upon approval of the Government, a sum not to exceed \$5,000 in case he omits a regular trip and does not provide for conveyance of the correspondence by other methods. The contractor is to put up \$40,000 security. Furthermore, he shall agree to comply with the laws and rules which the Government may enact concerning aviation in the Republic and with the terms of any treaties it may sign with other countries. Bids must be presented in sealed envelopes, the nature of the communication set forth on the envelope, and must be accompanied by proof of having intrusted \$10,000 to the administration general of the mails, which is required of all aspirants. The sum which the contractor expects to receive from the Government for every kilogram of mail carried should be stated by the bidder in his proposal. Persons legally authorized to represent bidders may guarantee their proposals by certificates to the effect that the bidders they represent have made the required deposit in the Colombian consulate, or in the bank which the consul may have indicated and under the conditions fixed by it. For further details application may be made to the Pan American Union at Washington, D. C.

The little-known ISLANDS, COCOS AND MALPELO, Colombian possessions, situated in latitude 30° 52' north, longitude 81° 35' west of the Greenwich meridian, in the Pacific Ocean, lie approximately 280 knots from the port of Buenaventura. Malpelo is 2

kilometers long and 800 meters in width, and attains a height of 846 meters.

A NEW WARD, known as El Bosque, has been added to Cartagena. The newly formed district is situated on the shores of the bay and is reached from the rest of the city by an excellent line of gasoline launches.

Volume II of the CONTEMPORARY HISTORY OF COLOMBIA, written by Señor Don Gustavo Arboleda, has been published in Bogotá. The volume contains an account of the events which took place from the end of 1841 to the 7th of March, 1848, thus comprising a history of the administrations of Gen. Pedro Alcántara and Gen. Tomás Cipriano de Mosquera, to the election of President López. The first volume contains a history from 1829 until the beginning of 1841.

The geological commission, an official organization presided over by Prof. Scheibe, has returned to Bogotá after conducting several SCIENTIFIC EXPEDITIONS through various parts of the Department of Antioquia.

During August a STATUE TO BOLIVAR, THE LIBERATOR, will be unveiled in one of the handsomest parks of Barranquilla. The statue, a gift to the city by Señor Don Andrés Obregón, is a reproduction of the original by Frémiet, which was unveiled in Bogotá during the celebration of the centenary of independence.

The ministry of foreign relations appointed the following members of the MIXED BOUNDARY COMMISSION to pass upon the Ecuadorian frontier: Jurisconsult, Dr. Eduardo Rodríguez Piñeres, chief engineer, Dr. Darío Rozo, and Secretary, Dr. Antonio Cárdenas Mosquera.

According to the census just taken the POPULATION OF THE DEPARTMENT OF ATLANTICO totals 143,673 inhabitants. Barranquilla, capital of the department, has increased 15,647 in population since 1912.

A new theater is being erected in Medellín, at an estimated cost of \$60,000, to be known as the TEATRO BOLIVAR. It is expected it will be completed by September of the present year.

A NEW WEEKLY PAPER, called El Literario, is being published in Bogotá under the direction of Señor Diego Uribe.

The President has appointed Dr. Hernando Holguín y Caro and Dr. Miguel Abadía Méndez to the offices of minister of foreign relations and minister of public instruction, respectively.

The PUBLIC IMPROVEMENT SOCIETY OF MEDELLIN composed of the most prominent women and young ladies of the city, recently elected Senorita Carlota Toro de Tobón, Senorita Pepa Angel de Zuleta, and Senorita Cecilia López as president, vice president, and secretary, respectively, of the organization.

COSTA RICA.

The President has appointed Señor Don Franklin Jiménez Delgado as MINISTER OF COMMERCE AND THE TREASURY to replace Señor Enrique Ortiz Rivera, resigned.

Dr. Manuel Cabezas and Dr. Santiago Zamora were elected presidents of the provincial councils of the COSTA RICAN RED CROSS in the cities of Heredia and Alajuela, respectively.

The National Government has ordered a high-power RADIO TELEGRAPH STATION from the United States in order to foster domestic commerce by rapid communication and information as to conditions and prospects in foreign markets.

The National Government has sent three SPECIAL DIPLOMATIC MISSIONS to the Governments of Guatemala, Salvador, and Honduras. That to Guatemala is in charge of Señor Lic. Francisco Farrón; that of Salvador under Señor Don Ricardo Mora Fernández; and the last under Dr. Don Rafael Calderón.

CUBA.

A RADIO TELEGRAPH STATION on the "Central Chaparra" sugar factory grounds is being established and an office building erected. According to press reports the station will be in operation by the end of July.

A newspaper of Habana announces that the OFFICE OF THE AMERICAN INTERNATIONAL UNION in that city, for the protection of trade-marks, is to be in operation in about two months. The bureau will protect American trade-marks of the countries which have agreed to the convention concerning the matter, as signed at the Fourth International American Congress held in Buenos Aires in 1910. The office has set forth regulations concerning the carrying out of the treaty.

La Nación, a daily of Habana, published the entire text of the message the President delivered to the national congress June 14, in presenting the report submitted by the American legal adviser, Gen. Enoch H. Crowder, in regard to MODIFICATIONS OF THE ELECTORAL LAW in force in the Republic.

DOMINICAN REPUBLIC.

The Government has approved the plan of the general directorate of public works for the establishment of a LEPER ASYLUM in which all lepers of the country will be cared for in 50 cottages for men with independent apartments after the manner of a bungalow court, in groups of five; and 50 for women, separated from the men's quarters by a hedge. Apart from these buildings, each group will have its baths, kitchens, laundries, hospitals, sick wards, servants'

quarters, etc., and from a beautiful park an unobstructed view of the sea.

The health department has initiated an active **ANTIMOSQUITO CAMPAIGN** in the hope of eliminating the pests in all the cities.

Sr. don Luis Fernando Prada has been made **CONSUL OF COLOMBIA** in the city of Santo Domingo.

During the middle of May a commission of engineers from the Geodetic Bureau of the United States reached Santo Domingo to take charge of a **GEODETIC AND TOPOGRAPHICAL SURVEY** of the country to determine specifically the areas of various natural resources. The engineers will begin a preliminary investigation immediately to study the conditions and requirements throughout the entire country and draw up a general plan for the examinations which will lead to final physical mapping of the Republic and the report of specific information concerning the geological formation, mineralogical deposits, forestry, water power, etc. Such an elaborate and extensive study has never before been undertaken in the Dominican Republic. Lieut. Col. G. S. Smith is chief engineer of the party.

By law No. 283 of the military governor of the Republic the work in the departments of Agriculture and Immigration and of Industry and Communications will be carried on under the direction of Lieut. Commander Ralph Whitman during the administration of the present incumbent, Mr. C. C. Baughman.

ECUADOR.

The new chancellor of the Republic, Sr. Don Augusto Aguirre Aparicio, ex-minister plenipotentiary of Ecuador in Chile, was appointed **MINISTER OF FOREIGN RELATIONS** early in May of the present year.

The plans presented by the architect, Sr. A. E. Ridder, for the **GOVERNMENT PALACE OF THE PROVINCE OF GUAYAS**, in a contest held under the General Directorate of Public Works and published in the newspaper *El Comercio* of Quito, provide for a structural steel and reinforced concrete building with a white stone front, the stone to be obtained from the Putzalagua quarries in the Latacunga section. This stone, which is much like marble, is very durable and handsome. The cost of the projected building is estimated at 800,000 sucres (sucre=\$0.4867 United States gold).

Late in March the municipal council of Quito published the conditions for bids for the **HYDROELECTRIC PLANT** to be installed in the capital. Bids will be received from April 1 to September 1 of the present year. The municipality has voted to set aside the receipts from the annual public lighting tax and as much as may be necessary of the receipts of the new plant when it is in operation to pay for its installation.

GUATEMALA.

On April 14 the legislative assembly passed law No. 744, of December 7, 1918, setting December 25 of every year as a DAY OF THANKSGIVING.

By legislation of March 18, 1919, approved by the President on March 21, the citizens of the Republic are called to hold popular elections for PRESIDENT AND JUSTICES OF THE SUPREME COURT OF JUSTICE; for magistrates and auditors of the appellate court, and the respective alternates, for the period beginning March 15, 1920, and ending on the same date of 1924. The election will be held December 15 of the present year, according to the procedure set forth in law No. 403, of December 20, 1887.

HAITI.

The officer in charge of the RADIO STATION at Port au Prince announced a short time ago that the station is now ready to accept private messages for transmittal to all parts of the world.

The Haitian newspapermen have founded a PRESS ASSOCIATION under the name of Association des Journalistes haïtiens; at a meeting held on June 5, a by-law was adopted for the new organization.

According to press information the BLUE BOOK OF HAITI will be published in July. This book, which will have more than 300 pages and be profusely illustrated, will contain detailed information on Haiti, its agriculture, industry, commerce, etc.

The President of the Republic has named M. A. C. Sansaricq to succeed M. Légitime as COUNCILLOR OF STATE in view of the resignation of the latter.

HONDURAS.

The President of the Republic has authorized the issuance of POSTAGE STAMPS for the four years 1919-1923, of the following denominations: 2,000,000 1-cent stamps; 2,000,000 2-cent; 600,000 6-cent; 640,000 10-cent; 400,000 15-cent; 200,000 20-cent; 50,000 50-cent; and 250,000 \$1 stamps.

MEXICO.

Gen. Plutarco Elías Calles was appointed SECRETARY OF INDUSTRY AND COMMERCE by the President of the Republic and took the oath of office May 21, 1919.

Sres. Licenciados Antonio Alcocer, Benito D. Flores, Enrique Moreno, Adolfo Arias, José M. Mena, Agustín Urdapilleta, Patricio Sabido, Ignacio Norris, A. M. González and Ernesto Garza Pérez were elected MAGISTRATES OF THE SUPREME COURT OF JUSTICE in the regular session of the legislative chambers on May 21, 1919.

The National Government has passed preliminary laws with regard to the establishment of stations in the principal ports of the Gulf and the Pacific, from which the coasts will be guarded by HYDROPLANES.

Recently GIGANTIC FOSSILS have been discovered in Moncloa, State of Coahuila, which will be taken to the paleontological museum in Mexico City.

The Private Charities Association of Mexico has been endowed with a LEGACY OF 3,000,000 pesos by Señor Alberto Parres, who died in Paris some time ago. The property representing this sum consists of rural and urban estates in the State of Mexico.

Dr. Don Enrique Sánchez Paredes was consecrated ARCHBISHOP OF THE CITY OF PUEBLA on June 8, 1919, following his nomination by His Holiness Pope Benedict XV. Monseigneur Sánchez Paredes is the twenty-ninth among the canons of Puebla to arrive at the dignity of prince of the church, the seventh to occupy the episcopal chair of Puebla, and the third born within the State to be made archbishop.

On May 28 of this year a LABORERS' CONGRESS was held in Saltillo, at which all the unions in the Republic were represented.

NICARAGUA.

Señor Trinidad Lacayo has been appointed NICARAGUAN CONSUL to Los Angeles, Calif., by the President of the Republic.

Since the wireless apparatus in the Marte field of Managua is not sufficiently strong to meet their needs, the United States Marine Corps has petitioned the United States to establish a high power RADIO TELEGRAPH STATION there, by which direct communication with Panama may be had.

The LABORERS' UNIONS of the Republic, have consolidated under the name of "Central de Obreros" with headquarters at León and branches in Chinandega, Chichigalpa, Managua, Masaya, Nandaime, and Granada.

The minister of industry has contracted for the improvement of the NATIONAL PALACE in Managua and the decoration of the salons of the national congress, both works to be completed by the end of the year 1920.

PANAMA.

The President has appointed a COMMITTEE OF LEGAL ADVISERS, in connection with the secretaryship of foreign relations, composed of the following: Sres. Horacio F. Alfaro, Harmodio Arias, Francisco Filó, Narciso Garay, Gregorio Miró, and Eusebio A. Morales, to which the secretaryship may report concerning matters believed advisable to investigate. The committee is to present a detailed report concerning the various questions placed before it in as short a time as possible.

By a law of March 20, 1919, the national assembly approves of the establishment of a PENAL COLONY ON COIBA ISLAND, as proposed in law 41 of 1912, and authorizes the President to proceed as fast as the condition of the treasury may permit to the organization, establishment, and administration of the colony and the development of its agricultural industries at the expense of and for the benefit of the nation. The executive is empowered also to introduce in the island any industrial enterprises that employ or involve the refining of natural and agricultural products grown on the island.

On August 15 of this year the CITY OF PANAMA will celebrate the four hundredth anniversary of its founding by Pedro Arias Dávila.

PARAGUAY.

The owners and directors of the leading commercial and industrial firms of Asuncion have agreed to adopt the ENGLISH SABBATH—that is, to grant a holiday to their employees from noon Saturday to the following Monday morning throughout the year, except in case of those whose services can not be spared by nature of the work conducted, in which case some other day of the week will be given them.

On August 12 of this year, the anniversary of the battle of Piribebuy, a MONUMENT will be erected in the city bearing the same name, to commemorate the event among the Paraguayan people.

By presidential decrees Nos. 9,393, 9,394, and 9,395 the personnel of war officials, officers, and military employees of the NATIONAL ARMY is arranged, the army and navy placed on a peace basis, and the armed forces of the Republic distributed.

Under the presidency of the minister of justice and public instruction an ATHLETIC FIELD constructed by the Olympia Club of Asuncion was opened in that city on April 13, 1919.

SALVADOR.

Drs. José Antonio Rodríguez and Manuel I. Morales have been appointed, respectively, MINISTERS of Salvador near the Governments of Guatemala and Honduras.

During the latter part of April last the STATUE of Dr. Antonio Rosales, which is soon to be erected in San Miguel in Rosales Park, was received.

Drs. Leonardo Lope and Felix A. Gomez, who have been elected JUDGES of the western court of second instance, entered upon the discharge of their duties on April 14 last.

Early in May of the present year the DRAINAGE OF ILOPANGO LAKE was begun through a ditch constructed by the Government one-fourth of a kilometer long, 4 meters wide, $2\frac{1}{2}$ meters deep, and with

a grade of $2\frac{1}{2}$ per cent. According to the reports of the engineer in charge of the work the escape of water during the first 24 hours was 1,680,000 cubic meters, a volume which increased daily until the lake was sufficiently drained by the enlargement of the drainage canal. The waters of this lake border on the departments of San Salvador, La Paz, and Cuscatlan. The lake is 13 kilometers long and 10 kilometers wide, and is situated in one of the most picturesque spots of the Republic, at a normal altitude of 442 meters above the level of the ocean. It contains three small islands—namely, El Pato, Tecuacuil, and Las Rocas, all of which rose from the bottom of the lake in January, 1880. The Asiloapa, Cuajes, Apacingo, and Cujuapa Rivers flow into this lake.

On May 5 last the supreme council of the RED CROSS of Salvador was organized with the following officers: Dr. Federico Yúdice, president; Dr. J. Max Olano, vice president; Señor Arturo González, treasurer; Dr. Lucio Alvarenga, attorney; and Dr. Eduardo Alvarez, secretary.

URUGUAY.

The president has appointed a commission, consisting of the general auditor of the Nation, the administrator of the national printing office, and the inspector general of finance, to decide upon the utility of OFFICIAL PUBLICATIONS now issued by the Government and to suggest such changes as it may deem expedient.

A resolution of the minister of war, dated April 9 last, approves the proposed rules and regulations for MILITARY CONSTRUCTION formulated by the chief architect of that office, and which were printed in the Official Gazette of April 21 last.

A committee has been appointed to study, prepare, and submit to the consideration of the department of industries a plan modifying the NATIONAL PRINTING OFFICE, including the location and construction of a new building, the purchase of modern machinery, an expense budget, and such other data as it may deem advisable to collect.

The Senate and House of Representatives, assembled in general session, decreed May 2 a NATIONAL HOLIDAY in honor of Spain.

On May 2 last the executive power issued a decree regulating the law of February 26, 1919, concerning the SANITATION OF INTERIOR CITIES.

On May 18 of the present year the inauguration of the SECOND AMERICAN CHILDREN'S CONGRESS was opened by the President of the Republic. The presidents of all of the Republics sending delegates were made honorary presidents of the congress.

An executive decree of May 9 places under the authority of the department of public instruction the NATIONAL CENTENARY COMMISSION OF THE BATTLE OF LAS PIEDRAS charged with the

erection of a monument in honor of Gen. José Artigas, in accordance with the laws of July 5, 1883, March 23, 1906, and July 9, 1909.

VENEZUELA.

As required by the constitution of Venezuela, the NATIONAL CONGRESS assembled in the city of Caracas in regular session on April 19 last. The election of officers resulted as follows: Dr. Pedro M. Arcaya, president of the senate, and Dr. Adolfo Bueno, speaker of the house. The Provisional President of the Republic read an interesting message to the congress, in which he gave an account of the acts of the administration during the past year.

Arbor day in the city of Bolivar was celebrated on May 25 last by the opening of a NEW AVENUE constructed by the Government, and the christening of same "Dallacosta Avenue," in honor of Juan Bautista Dallacosta, one of the most able, patriotic, and distinguished benefactors of that city.

SUBJECT MATTER OF CONSULAR REPORTS

REPORTS RECEIVED TO JULY 1, 1919.

Subject.	Date.	Author.
ARGENTINA.		
Development of aviation in Argentina.....	1919, Feb. 26	W. Henry Robertson, consu, general at Buenos Aires.
The Institution of Engineers of the River Plate.....	Mar. 1	Do.
Importation of automobiles into Argentina.....	Mar. 25	Do.
Prevailing marine freights from Buenos Aires to American and other principal primary market ports.	Mar. 26	Do.
Taximeters—schedule of taxicab rates in Buenos Aires.....	..do.....	Do.
Projected macadamized highways between Buenos Aires and Bahia Blanca.	Mar. 29	Do.
Imports of laundry soap for five years, 1910-1916.....	Apr. 4	Do.
Exports of crude tartar or wine lees, 1913-1916.....	Apr. 7	Do.
Cost of living for Argentine working classes.....	Apr. 9	Do.
Exports of borax from Argentina.....	Apr. 22	Do.
BOLIVIA.		
Congestion of American merchandise in Mollendo, Peru, destined for Bolivia.	May 10	Ross Hazeltine, consul at La Paz.
BRAZIL.		
Coal—kind used, duty, prices, etc.....	Mar. 5	A. T. Haeberle, consul at Pernambuco.
Heavy rains and inundations in Brazil.....	Mar. 15	Augustus I. Hasskarl, vice consul at Rio de Janeiro.
Preliminary report of the foreign trade of Brazil during the year 1918.	Mar. 20	Do.
The textile industry in Brazil.....	Apr. 1	Do.
Registration of trade-marks in Brazil.....	Apr. 4	Do.
Exportation of pine wood from Brazil to Uruguay and Argentina.....	..do.....	Do.
Brazil nuts or Castanhas do Para.....	..do.....	Do.
Statement of Banco Vitalicio for year 1918.....	..do.....	Do.
The centenary of the independence of Brazil.....	..do.....	Do.
The hookworm in Brazil and rural sanitation in the suburbs of Rio de Janeiro.	Apr. 7	Do.

Reports received to July 1, 1919—Continued.

Subject.	Date.	Author.
BRAZIL—continued.		
Exports of crude rubber, all kinds, for March, 1919.....	1919. Apr. 7	Geo. H. Pickerell, consul at Para.
American press service in Brazil.....	Apr. 8	Augustus I. Hasskarl.
Exportation of manganese for first two months of the years 1913 to 1919.....	Apr. 11	Do.
Workmen's compensation law.....	Apr. 14	Do.
Sheep and goat raising in Brazil.....	Apr. 16	Do.
Brazil opens a credit to assist in the development of her fisheries.....	do.	Do.
Brazilian Government requisitions the Itajahy-Blumenau River Steamship Co.....	Apr. 22	Do.
Stock raisers in State of Sao Paulo.....	Apr. 30	Chas. L. Hoover, consul at Sao Paulo.
Foreign loans in Brazil.....	May 1	Augustus I. Hasskarl.
Statistics regarding deaths in Bahia.....	May 6	Edward Higgins, consul at Bahia.
Market for thoroughbred cattle in State of Rio Grande do Sul...	May 7	Samuel T. Lee, consul at Porto Alegre.
Expositions to be held at Rio de Janeiro.....	May 8	Augustus I. Hasskarl.
CHILE.		
Branch of the Jugo-Slav Bank of Punta Arenas to be established at Antofagasta.....	Apr. 14	Arnold A. McKay, consul at Antofagasta.
Summary of business conditions in district.....	Apr. 24	Do.
Docking and terminal facilities on west coast.....	do.	Do.
Automobiles, duties, licenses, etc.....	May 5	Thomas W. Voetter, consul at Valparaiso.
Regarding the market for American fresh fruits.....	May 6	Do.
COLOMBIA.		
Reported telephone extension project.....	Mar. 7	Claude E. Guyant, consul at Barranquilla.
Project of railroad in Colombia.....	do.	Do.
Desirability of opening mouth of Magdalena River.....	Mar. 8	Do.
Telephone statistics.....	do.	Do.
Contemplated improvements.....	Mar. 9	Do.
Opportunities for use of motor boats.....	Apr. 17	S. J. Fletcher, vice consul at Cartagena.
Foreign population of Cartagena.....	May 1	Do.
Market for fireworks.....	do.	Claude E. Guyant.
Territorial divisions and population of the Department of Bolivar, 1918.....	May 6	S. J. Fletcher.
Road building and the dredging of rivers in the Department of Bolivar.....	May 14	Do.
General commercial information.....	May 15	Do.
Annual report on commerce and industries of Cartagena for 1918.....	May 26	Do.
COSTA RICA.		
Stock raising in Costa Rica.....	Mar. 27	Benjamin F. Chase, consul at San Jose.
Market for canned meats.....	do.	Do.
Monthly report of commerce and industries, March.....	Apr. 19	Do.
Automobile industry.....	May 23	Do.
CUBA.		
Imports of chemicals into Cuba for 1917.....	Mar. 10	H. W. Harris, consul general at Habana.
Paper importation in 1918.....	Mar. 17	Charles S. Winans, consul at Cienfuegos.
Market for paper in district.....	Mar. 20	Geo. A. Makinson, consul at Cardenas.
Dairy machinery.....	do.	John L. Griffith, consul at Santiago.
New marble-cutting works established on Isle of Pines.....	Mar. 24	Wm. Bardel, consul at Nueva Gerona.
List of foodstuffs imported into Cardenas in 1917 and values.....	Apr. 7	Geo. A. Makinson.
Market for bicycles.....	Apr. 12	Charles S. Winans.
Market for biscuit products.....	Apr. 14	Do.
Suggestions regarding commerce between countries of American Continent.....	May 5	H. C. von Struve, consul at Habana.
Market for shoes for horses and mules.....	May 15	H. W. Harris.
Market for saddles in eastern Cuba.....	May 19	John L. Griffith.
Market for baled tin cans.....	May 27	Charles S. Winans.
Market for cleaners' and dyers' machinery.....	do.	Do.
Market for fireworks.....	do.	Do.
Market for baled tin cans and for preserves, jams, and jellies.....	May 29	Wm. Bardel.
Maps of automobile roads in Cuba.....	June 5	H. W. Harris.

Reports received to July 1, 1919—Continued.

Subject.	Date.	Author.
DOMINICAN REPUBLIC.		
Hardwood and dyewood resources of the country.....	1919. Feb. 21	Clement S. Edwards, consul at Santo Domingo.
Poor prospects of tobacco crop, 1919	Mar. 21	W. A. Bickers, consul at Puerto Plata.
The cacao crop for 1919.....	do.....	Do.
Excessive stocks of imports.....	do.....	Do.
Lands for tobacco and cattle raising.....	Mar. 25	Do.
New sugar mill near Puerto Plata.....	Apr. 2	Do.
Cattle slaughtering and beef packing in district.....	Apr. 22	Do.
Railway project for Santo Domingo.....	Apr. 28	Clement S. Edwards.
Proposed highway from Puerto Plata to Santiago.....	May 19	W. A. Bickers.
Market for office, school, and theater furniture.....	do.....	Do.
Opportunities for sale of fruit trees and other nursery products..	May 20	Do.
ECUADOR.		
Acuador as a market for cotton sacks.....	Mar. 18	Frederic W. Goding, consul at Guayaquil.
Egriculture in Province of Manavi, Ecuador	Apr. 9	Do.
Report on commerce and industries of Guayaquil, 1918.....	do.....	Do.
Monthly report for March, 1919.....	Apr. 14	Do.
GUATEMALA.		
Opportunities for capital and employment in Guatemala.....	Mar. 20	E. M. Lawton, consul at Guatemala.
Guatemalan railway system.....	Apr. 16	Do.
Leading importers of Guatemala and lines of business.....	Apr. 24	Do.
HONDURAS.		
Products available for canning in the Bay Islands.....	Apr. 16	Chas. N. Willard, consul at Ceiba.
Opportunity for sale of fruit trees and other nursery products....	May 23	Do.
Market for cleaners' and dyers' machinery.....	May 31	Do.
MEXICO.		
Sale of laundry soap in district.....	Apr. 2	Edward A. Dow, consul at Ciudad Juarez.
Modification of Mexican custom tariff by presidential decree.....	Apr. 4	Joseph W. Rowe, vice consul at Mexico City.
Exportation of henequen from Yucatan for 1918.....	Apr. 9	Do.
Revision of railway freight tariffs.....	Apr. 15	Chas. H. Cunningham, vice consul at Mexico City.
Special delivery mail service.....	do.....	Do.
Communication between Tequila and El Salvador.....	do.....	Do.
American Chamber of Commerce of Mexico.....	Apr. 23	Joseph W. Rowe.
Annual report of consular district for 1918.....	Apr. 26	Philip C. Hanna, consul at Monterey.
Improvement in waterworks system in Ciudad Juarez.....	Apr. 29	Edward E. Dow.
Agricultural conditions in Ciudad Juarez district.....	May 3	Do.
Annual report for 1918.....	May 5	Randolph Robertson, vice consul at Nuevo Laredo.
Portuguese colonists in Mexico.....	May 6	Chas. H. Cunningham.
Mexican trade with Belgium.....	do.....	Do.
Operations renewed at steel plant at Monterey.....	May 14	Thomas Dickinson, vice consul at Monterey.
Corn production and prices for 1918.....	May 15	Chas. H. Cunningham.
Reopening of the banana trade in district.....	do.....	Thomas W. Bowman, consul at Frontera.
Foreign corporation in Mexico.....	May 16	Chas. H. Cunningham.
Automobiles.....	May 20	Edward A. Dow.
Opportunity for sale of nursery stock.....	May 21	Gaylard Marsh, consul at Progreso.
List of hotels.....	May 22	I. Gaylard Marsh.
Exports from Mexico for 1918.....	May 26	Chas. H. Cunningham.
Mexican commercial mission to the United States.....	May 27	Do.
Clothing factory in Ciudad Juarez.....	May 28	Edward A. Dow.
New American commission firm in Juarez.....	May 31	Do.
NICARAGUA.		
Coffee shipments from Corinto during first quarter of 1919.....	Apr. 11	A. J. MaConnico, consul at Corinto.
The market for fireworks.....	Apr. 24	Do.
Annual report on commerce and industries for 1918.....	May 10	Do.

Report Received to July 1, 1919—Continued.

Subject.	Date.	Author.
PANAMA.		
Export and import commission houses.....	1919. Apr. 11	Alban G. Snyder, consul general at Panama.
Report on commerce and industries for March, 1919.....	Apr. 18	Do.
Report on commerce and industries for April, 1919.....	May 12	Do.
Duties on soaps.....	May 13	Do.
Market for fireworks.....	May 14	Do.
To manufacture piano frames in Colon.....	May 16	Julius D. Dreher, consul at Colon.
First bonded warehouse in Colon.....	May 23	Do.
PARAGUAY.		
The market for rope and twines.....	Mar. 17	Henry H. Balch, consul at Asuncion.
Commercial correspondence.....	Mar. 19	Do.
The use of taximeters in Paraguay.....	Mar. 25	Do.
Report on commerce and industries for February, 1919.....	Mar. 26	Do.
Possible market for motor trucks.....	Apr. 12	Do.
Market in Paraguay for starch and edible oils.....	May 2	Do.
PERU.		
Military aviation examinations.....	Apr. 2	William W. Handley, consul general at Lima.
Cultivation and classification of Peruvian cotton.....	Apr. 12	Do.
Annual report of the Lima Light, Power & Tramway Co.....	do....	Do.
New wireless station at Eten.....	do....	Do.
High cost of living in Peru.....	Apr. 30	Do.
URUGUAY.		
Institution of Fisheries inaugurate cold storage and ice plant....	Mar. 18	William Dawson, consul at Montevideo.
Budget for Uruguayan Asistencia Publica.....	do....	Do.
Commercial congress at Montevideo.....	Mar. 19	Do.
Duties of the bureau of labor.....	Mar. 20	Do.
Child care in Uruguay.....	Mar. 21	Do.
Liga de Defensa Comercial extends activities.....	Mar. 24	Do.
Privileges granted for the manufacture of tiles.....	Mar. 26	Do.
Patent privileges in Uruguay.....	do....	Do.
Statement of Banco de la Republica Oriental del Uruguay to Feb. 28, 1919.	Mar. 31	Do.
VENEZUELA.		
Venezuelan traffic and revenues for 1918.....	Mar. 21	Homer Brett, consul at La Guaira.
Outlook for Venezuelan foreign trade.....	Mar. 31	Do.
Reduction in foreign-owned public debt of Venezuela.....	do....	Do.
Comment on errors in regard to Venezuela.....	Apr. 25	Do.
Conversations with business men.....	do....	Do.
Commerce and industries of consular district for 1918.....	Apr. 29	Frank Anderson Henry, consul at Puerto Cabello.
The flour trade of Puerto Cabello.....	Apr. 30	Do.
Bags and bagging in Puerto Cabello.....	May 1	Do.
Decrees of May 10 and May 12—Changes in tariff classifications..	May 14	Homer Brett.
Reorganization of the Caracas Chamber of Commerce.....	do....	Do.



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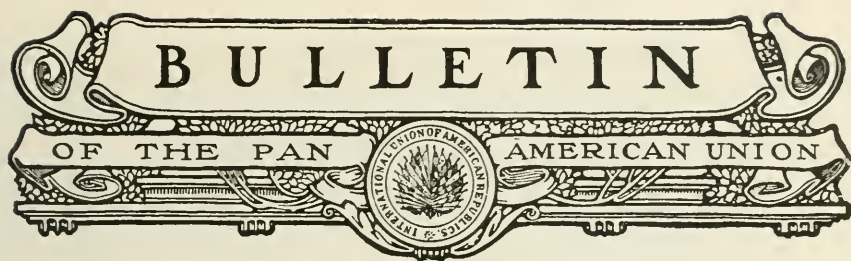
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ON THE CUNUCUNUMA RIVER, VENEZUELA.



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No. 2

THE CENTENARY OF THE BATTLE OF BOYACÁ.¹

THE three nations which at one time represented the great work of Bolivar, celebrated during the present month the first centenary of the battle of Boyaca, which took place August 7, 1819. That glorious engagement in which the genius, perseverance, and foresight of Bolivar shone forth in all their splendor, was one of the decisive victories in the history of the human race. Boyaca was, in effect, the fundamental base of the Great Colombia, inasmuch as the territory of the old viceroyalty of New Granada was freed by it, the union of the last-named entity with Venezuela and Ecuador made possible, and the war, which hitherto had been to the death, was transformed in the future into a struggle between civilized armies. This victory prepared the way for the triumph of Carabobo, by which the ruin of the great armies of the King in Venezuela occurred, opened the road through the south which led the liberating troops to Bombona and to Pichincha, and the promises of Junin and Ayacucho, which culminated in the independence of South America, were assured to those same armies.

Boyaca likewise means the consummation of one of the boldest and most heroic campaigns recorded in military annals—one of the most celebrated deeds of human achievement, not in the least inferior to those attained in olden times by the great leaders made known to us in history.

The year 1819 was, for the patriots of Venezuela, the ending of their misfortunes, and, at the same time, the goal of glory, which, in union with their brothers of New Granada and Ecuador, they had attained on the field of battle of five nations and upon the broadest stage of international politics of America.

¹ By Dr. A. C. Rivas, of Pan American Union staff.



THE BATTLEFIELD OF BOYACA LOOKING TOWARD THE SOUTHWEST.

The battle of Boyacá was fought on August 7, 1819, 75 days after the army of the Liberator left the village of Mantecal, situated in the Venezuelan Province of Barinas. This battle was the result of the marvelous crossing of the Northern Andes by the army of Bolívar.

The invasion of the plains by Morillo at the beginning of his campaign of 1819 revealed the force of Venezuelan arms which, thanks to the skill of Paez, maintained in check a trained army of 7,000 men who, tired and discouraged, retreated at the beginning of the rainy season to their winter barracks after the memorable encounter of Queseras del Medio. Bolivar did not imitate the attitude of his intrepid peninsular adversary, but decided to actively prepare the New Granada campaign which he had conceived in 1818. The information which he had received during that year concerning the state of public opinion in the eastern plains of Nueva Granada, induced him to send there Francisco de Paula Santander, a general of great political sagacity, in order that he might take command of the scattered troops in Casanare and form a strong division in that Province. This famous commander, without doubt the ablest for the mission confided to him, bore a proclamation addressed to the Granadines, in which, with his accustomed prophetic vision, Bolivar said:

Granadines! The day of America has arrived; no human power can retard the course of nature guided by the hand of Providence. Unite your forces to those of your brothers. Venezuela marches with me to set you free, as you with me, in years gone by, liberated Venezuela. Already our vanguard covers with the luster of its arms some Provinces of your territory, and this same vanguard powerfully supported will drive into the sea the destroyers of New Granada. The sun will not complete the course of the present season without seeing altars erected to liberty in all your territory.

On receiving the communications in which Santander advised him of the advantages which he had obtained on the plains of Casanare as well as the state of excitement in which the trans-Andean Provinces found themselves, Bolivar called his generals to a council of war, held May 23, 1819, in the town of Setenta on the banks of the Apure River. The historian, O'Leary, on referring to the place in which Bolivar met with his companions, says:

There was not a table in that hut, nor seats other than the skulls of cattle that had been slaughtered recently in royalist guerrilla warfare with which to provision the troops. Seated on these skulls, which the rain and the snow had whitened, those chiefs were going to decide the destinies of America. In no other manner, I am inclined to think, would Romulus and his companions have deliberated when they resolved to survey the narrow limits of the Eternal City.

It was there Bolivar made known his projects, and a general plan of campaign was agreed to at once. On the plains, in the west and in the east of Venezuela, a number of the officers of Bolivar were to oppose the 17,000 men with which Morillo was occupying the greater part of that nation, while the Liberator undertook the crossing of the Andes.

The Spanish forces which dominated New Grenada exceeded at that time 9,000 men, of which some 4,000, under the command of



THE BATTLEFIELD OF BOYACÁ LOOKING TOWARD THE EAST.

Hiram Bingham, Professor of Yale University, who in 1906 made a journey of investigation over the same road which the army of Bolívar traversed in 1819, on referring to the Boyacá campaign states that the difficulties experienced by Bolívar in his campaign of 1819 and the valor and resistance shown by the army of the Liberator have not been exaggerated. In fact it is not easy to graphically reproduce them so that they will be appreciated by those who have not felt the disappointments of a similar undertaking. Therefore, it is not surprising that South Americans like to compare the bravery of Bolívar with that of Hannibal and Napoleon on crossing the Alps.

Barreiro, occupied the strategic points of the cordillera over which Bolivar must pass. After his meeting with Santander in Casanare, the Liberator had under his command four battalions of infantry with 1,300 men; seven squadrons of cavalry with 700 men, and 1,200 cavalry and infantry contributed by Santander—that is to say, a total of 3,200 fighting men, a force greatly inferior to that of the enemy, who, in addition to being stationed in strong positions, had valuable reinforcements in the rear.

The crossing of the Andes by Bolivar has received the attention of historians and tacticians, all of whom have termed it grand. To arrive at a knowledge of the obstacles which the invading army would necessarily have to overcome and the untold suffering that it would need to undergo, it is sufficient to read the description which the master hand of the Argentine historian, Mitre, wrote of this celebrated march. It is as follows:

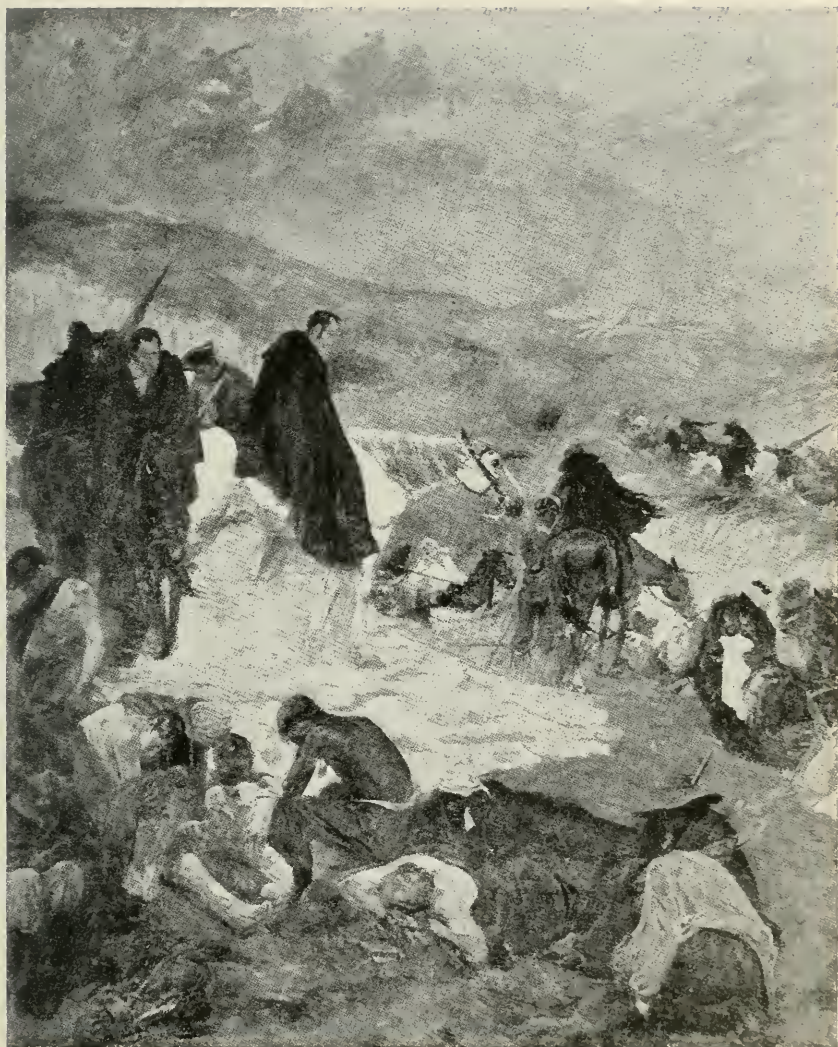
On transferring the invading army from the plain to the mountain, the landscape changed. The snowy peaks of the eastern chain of the Andes appeared in the distance. The large and tranquil lake on a level with the plains was fed by great streams of turbulent water which descended from the mountains. A gigantic forest of tropical trees with their tops capped by the clouds, and from which a continuous rain fell, shaded the narrow passes. On the fourth day's journey all the horses had become unserviceable. A squadron of cavalry from the plains deserted en masse on finding themselves on foot. The torrents were crossed by narrow swinging bridges formed of the trunks of trees, or by means of aerial bridges of rope; when forded they were so swift that the infantry had to form in two columns with their arms around each other's necks to resist the force of the current which swept away forever anyone who lost his balance. Bolivar frequently crossed and recrossed these torrents on horseback, carrying on the horse's rump the sick, the most feeble, or women who accompanied their soldiers. This was relatively the wild garden of the mountain, in which the moist and hot temperature, with the assistance of firewood, made the passage bearable. As the higher elevation was reached the aspects of nature changed and the conditions of life were altered. Immense superimposed chaotic rocks and mounds of snow formed the monotonous boundary of the desert scene. The clouds which crowned the forests on the slopes were seen at one's feet in the depth of the abysses. A cold and silent wind charged with needles of ice blows in this region; no other noise is heard but that of the torrents in the distance and the cry of the condor; vegetation disappears, and only lichens and a plant which, because of its stem and velvety leaves, resembling a funeral gauze and crowned with yellowish flowers, has been compared to a sepulchral torch, grow there. To make the road more gloomy its entire length was marked by the crosses of dead voyagers. This was the paramo or highland desert.

At the time the expeditionary army entered the glacial region of the paramo, the provisions had been exhausted. Cattle on the hoof, the only resource upon which they relied, could not accompany the soldiers in their fatiguing journey. On reaching the summit the Paya defile was found, which well defended with a sole battalion could have stopped the march of an army. On crossing the great cordillera more than 100 men had died of cold. None of the horses had been able to resist the hardships. It was necessary to abandon the spare arms and part of those which the soldiers carried in their hands. On descending the western slope of the cordillera the army of Bolivar was but a skeleton.



BOLÍVAR IN THE ANDES.

The above engraving is a reproduction of a mezzotint made in London in 1824 by S. W. Reynolds, an English painter. At the time Bolívar carried on his campaign of the Andes and won the battle of Boyacá he was scarcely 36 years old.



CROSSING OF THE ANDES BY BOLÍVAR.

The above engraving reproduces the central painting of the triptych of the noted Venezuelan painter, Tito Salas, which hangs in one of the halls of the Federal Palace in Caracas. The Liberator appears, mounted on a horse, in the center of the painting.

The forces of Bolivar, when they met the Spanish army, were fatigued, decimated by death, hungry, in rags, stiff with cold, and discouraged, and appeared more like a legion of specters than a phalanx of warriors. Nevertheless, its vanguard, under the command of Santander, rolled back the detachment placed in the formidable position of Paya.

The army continued its march on July 2, having to cross the Pisaba paramo, a gloomy and forbidding desert where, due to the effect of the cold air, many soldiers suddenly fell sick and died within a few minutes; on the 6th, part of the same army reached Socha, where the troops, who, on gazing back at the high crests of the mountains covered with snow and mist, then and there resolved to conquer or die rather than begin a retreat which they feared more than the enemy. At Socha the army was able to somewhat replenish its ammunition, obtain new cavalry, and find provisions.

While this was happening Barreiro, who had his general headquarters at Sogamoso, gave account for the first time of the bravery of the patriots. A picket of Bolivar's cavalry surprised and captured on the 7th a royalist detachment stationed at Bonza, and from the 10th to the 25th of July the patriots fought at Gámeza and Vargas Swamp, engaging in a violent action at the latter place the result of which was decided by the plainsmen (llaneros) commanded by the fearless Rondon and assisted by the British legionaries.

After the battle of Vargas Swamp, in which it was twice thought that the army of the Liberator was lost, Bolivar's troops were reinforced with 800 men from the conquered territories, who voluntarily joined the army, as well as with munitions of war for which it had been waiting. On August 3 the march was again commenced against the enemy, and by a general movement Bolivar transferred his forces to the right bank of the Sogomoso River. During the day he made a pretended retreat, but in the night effected a skillful countermarch and occupied Tunja, where he secured 600 guns and munitions of war. In this way Bolivar placed himself between the army of Barreiro and Bogotá. Barreiro, impressed with the great importance of these tactics, endeavored to reestablish his lost communications and undertook to march against Bogotá. It was too late, however, because Bolivar discovered the movements of the enemy, and taking advantage of the position which he occupied, stationed his troops on the right bank of the Boyaca River and near the bridge which crosses that stream.

The historian, O'Leary, one of the heroes of that campaign, made his name famous by describing, as follows, the battle of August 7, which was fought at the place mentioned:

At 2 o'clock in the afternoon the first royalist column reached the Boyaca bridge, and was crossing when the advance forces of the patriots attacked it in the rear at

the same time the Santander division reached the heights which dominated the position in which Barreiro had formed his army.

The battle was begun by guerrilla skirmishes, during which a column of royalist hunters, under the orders of Col. Jiménez, crossed the bridge and formed for action, but Barreiro, not being able to bring over the main force of his army, ordered it to fall back about three-fourths of a mile from the bridge, and while this was being done the independents had time to cut his communications with Santa Fe.

Santander was immediately ordered to force the bridge, and Anzoátegui to attack, at the same time, the right and center wings of the royalist's position. The engagement then became general; the Spanish infantry fought for some time with great bravery until its right wing was surrounded by Anzoátegui with his spearmen, and until the artillery was captured by the rifles battalion, which had attacked in front. The cavalry in rout was put to the sword, and the infantry, seeing this, gave way, and a bayonet charge decided the victory. Jiménez, who defended the bridge and held in check the Santander division, on seeing the predicament of Barreiro, slackened his efforts and the rout became general.

The immediate spoils of the battle of Boyaca consisted of 1,700 prisoners, among them Barreiro and the greater number of his generals and officers, artillery, munitions, arms, flags, horses, chests, and baggage.

Such was the result of the bold operations conceived and prepared by Bolivar, the culmination of which was effected 75 days after he had placed the army in march at the town of Mantecal, Province of Barinas. On the 10th Bolivar occupied Bogotá, from whence the Viceroy Sámano had fled, leaving in the vaults of the public treasury half a million pesos in current coin and about 100,000 pesos in gold bullion.

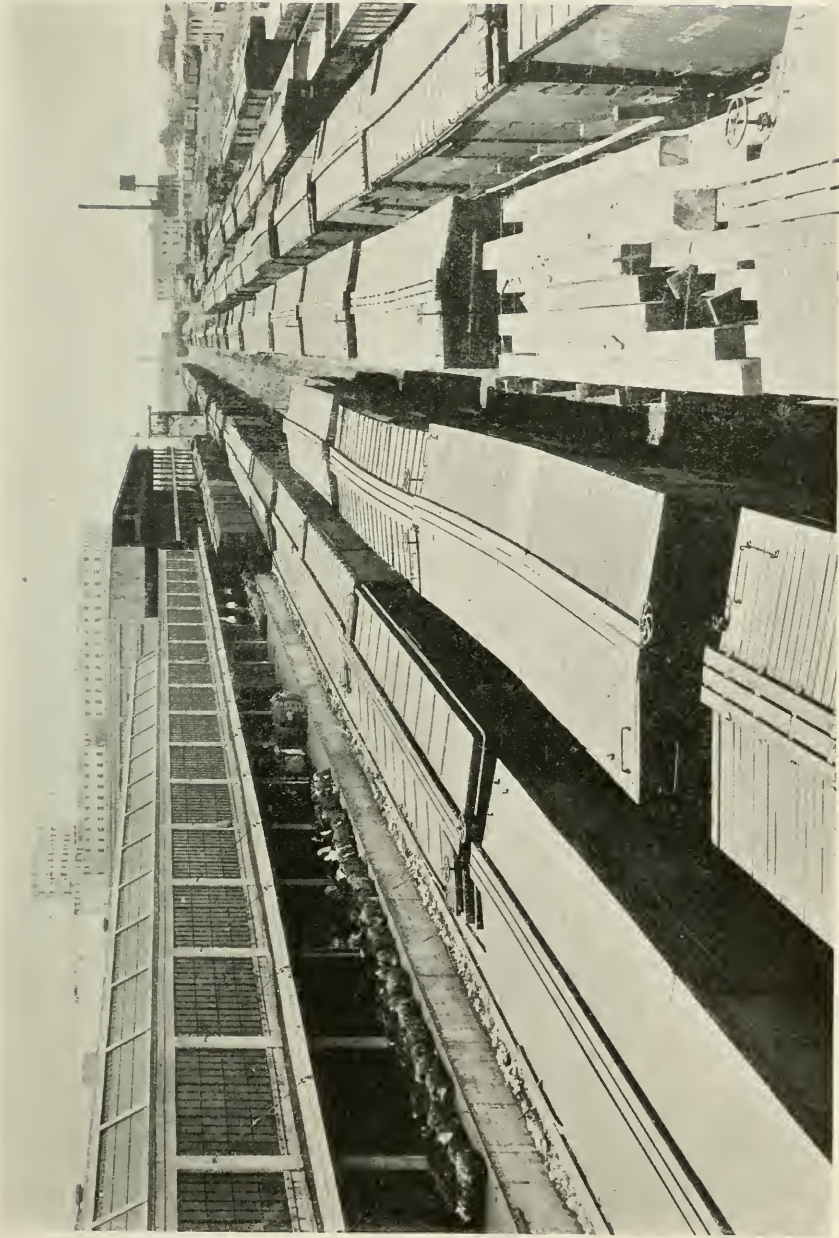
The battle of Boyaca not only determined the preponderance of the independent armies in the north of South America, but changed the destinies of the struggle for emancipation in all that section of the continent. "In a single day," as Morillo reported to his Government, "Bolivar destroyed the fruits of a five years' campaign, and in a single battle reconquered that which the troops of the King had gained in many combats." On the other hand, with Boyaca the prophecy—by some termed madness—made by Bolivar at Casacoima, on the banks of the Orinoco, in the dark days of 1817, that "I will take Angostura, occupy Caracas, go to Nueva Granada, enter Quito, free Peru, and unfurl our flag in Potosi," continued to be fulfilled.



NEW ORLEANS--GATE- WAY OF THE MISSISSIPPI VALLEY

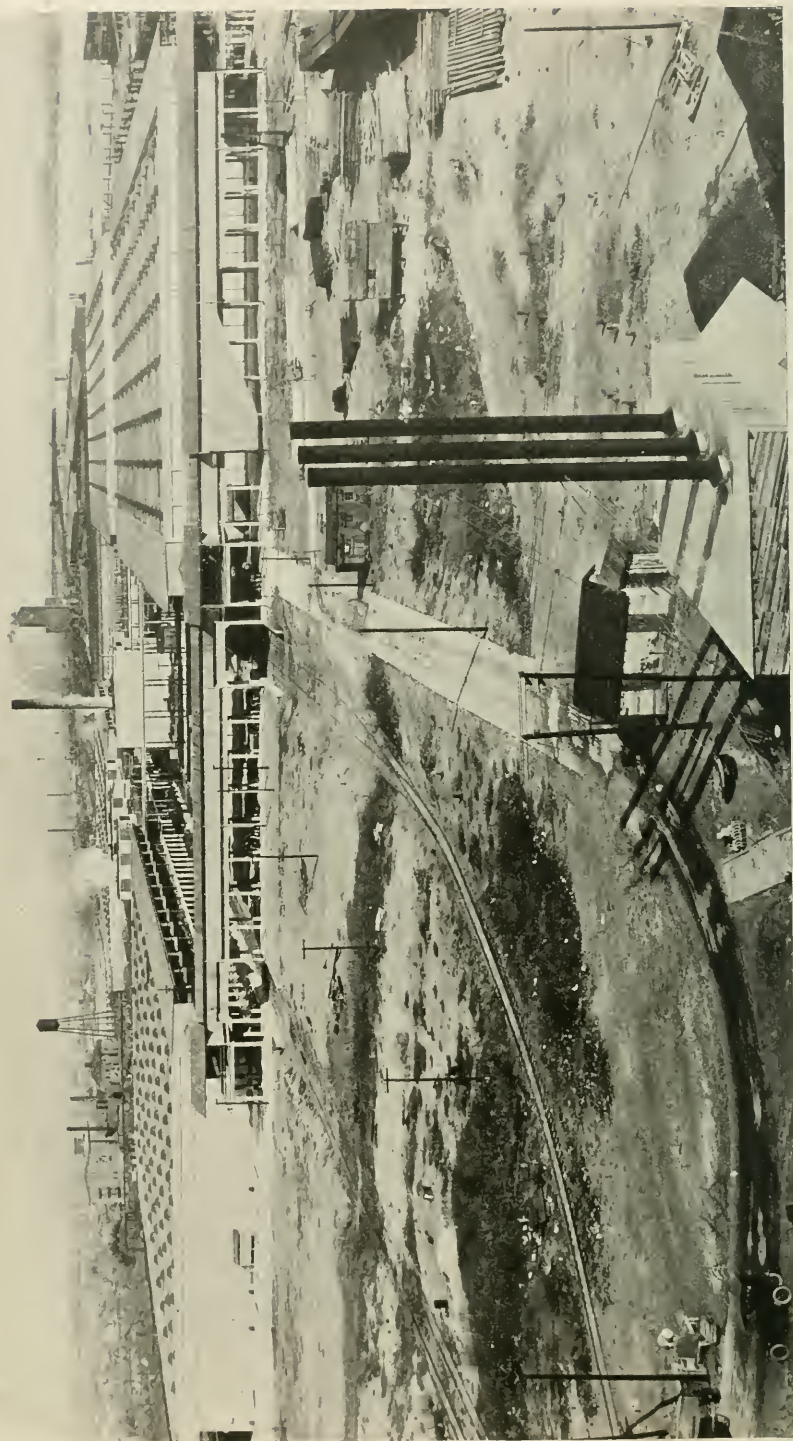
THE greatest port and metropolis of the southern section of the United States, New Orleans, is unique among the cities of the Americas. There is no other like it. Up-to-the minute in its modern civic improvements, typically American in its aggressive commercial energy, even ahead of the times in its city government and municipal ownership and control of public utilities, it is, nevertheless, in some features one of the oldest and certainly one of the quaintest and most foreign of the large cities of the United States. In the southwest quarter, with its modern business houses and fine residences, the visitor finds himself in a modern city of the United States; in ten minutes he may cross Canal Street, stroll into the northeast or "Latin Quarter" and find himself in a quaintly medieval city which might be French or Spanish. In the old "French Market" section he hears a veritable babel of tongues—French, Spanish, "Yiddish," near-English, and sometimes several of these mixed up in a "patois" that is distinctively "New Orleansesque." Even the names of the streets reflect something of the city's history. Its French origin is revealed in such names as Toulouse, Orleans, Du Maine, Conti, Bourbon, Dauphiné, Chartres, etc., while other street names such as Unzaga, Galvez, Miro, Salcedo, Casa Calvo, Baronne, etc., reveal the fact that at one time the Spaniards were in possession. Again Tchoupitoulas Street would lead one to infer that Indians had also had a hand in the general admixture of nomenclature.

The city is situated on the left bank of the Mississippi River about 107 miles above its mouth. It was founded in 1718 by Jean Baptiste Lemoyne, Sieur de Bienville, the French Governor of what was known as the Province of Louisiana, and was named in honor of the then Regent of France. The site selected was in a pronounced bend of the river, and after the little village had grown to larger proportions the river front, constituting a border some 9 miles long, formed a semicircular curve which gave it the sobriquet of "Crescent City." In the course of time, however, the city spread far beyond the pocket formed by the bend in the river until now it has more the form of the letter S. The site upon which it is built is almost perfectly level and only about ten feet above sea level, while the lower



COTTON SHEDS AND FREIGHT CARS, NEW ORLEANS, LA.

The cotton sheds are served by the Public Belt Railroad, having 60 miles of track. It is the only municipally owned and operated railroad in the United States.



BIRD'S-EYE VIEW OF COTTON WAREHOUSE, NEW ORLEANS, LA.

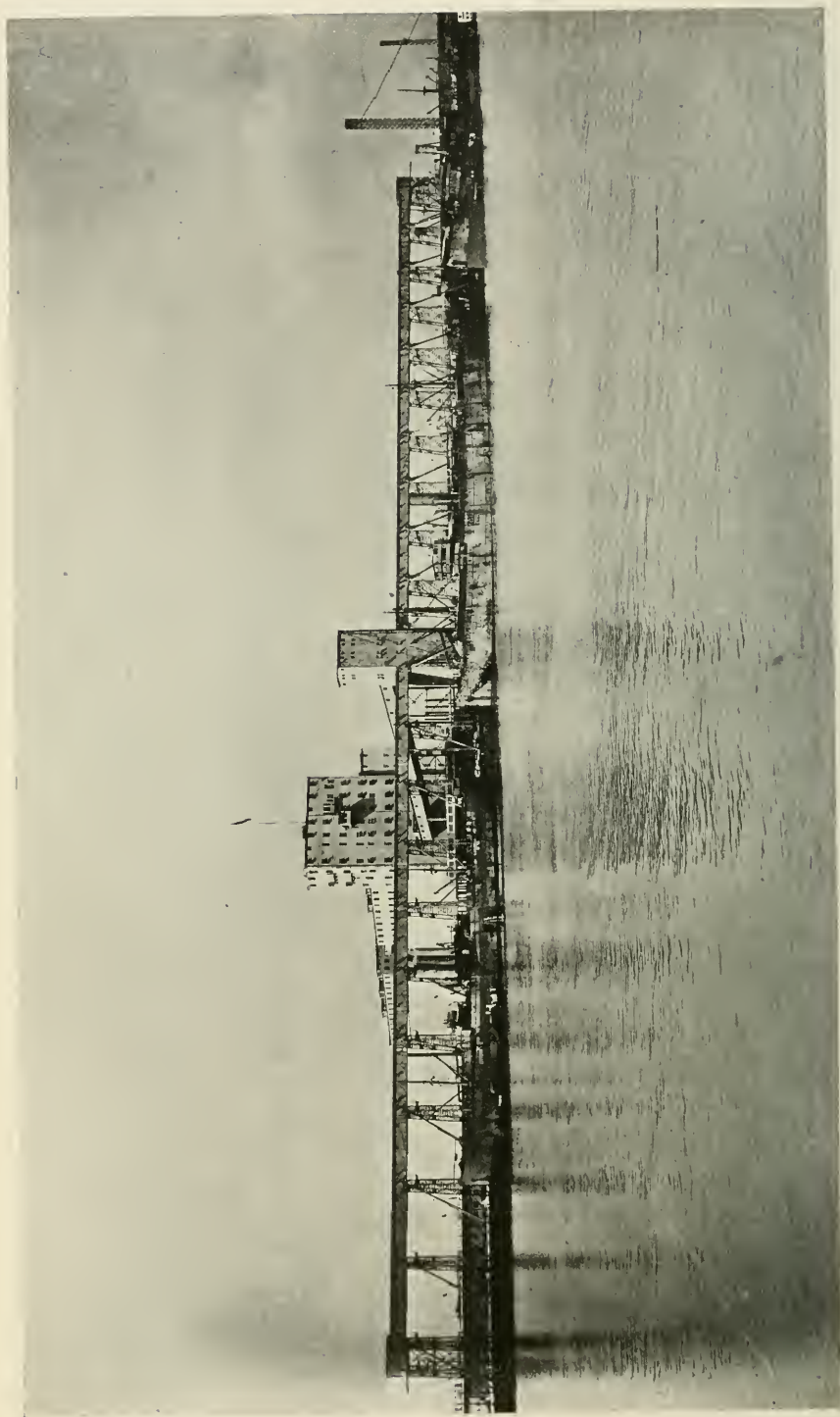
The publicly owned cotton warehouse at New Orleans is the largest handling plant for an agricultural product in the world. It has a storage capacity of 500,000 bales of cotton at one time.

parts are as much as ten feet below the high water level of the Mississippi River, being protected from inundations by tremendous dykes or "levees" backed by filled-in ground, so that an overflow is practically impossible.

To give an historical account of the city is beyond the scope of this article, but a few words anent the early period of its existence are necessary to explain its present complex characteristics. Song and story, legend and romance, poetry and drama, all have drawn inspiration from its early history, for it goes back to the days of the Spanish discoverers and adventurers who gave to the world a new hemisphere, since the history of New Orleans is also practically the history of Louisiana.

It has been claimed that Alonso Alvarez de Pineda was the first to discover the mouth of the Mississippi in 1519. This may be more or less conjectural, but it is known that Hernando de Soto entered what is now the State of Louisiana and that he lost his life near the place where the Red River enters the Mississippi. A few of the survivors of that ill-fated expedition floated down the "Father of Waters" to its mouth, so these must have seen the present location of the city as early as 1542. Strange to say, Spain failed to set up a claim to the vast domain that De Soto and his men had discovered, and when Robert Cavalier, *Sieur de la Salle*, came down the great river in 1682 he took possession of the whole region in the name of France, naming it Louisiana in honor of his sovereign, Louis XIV. La Salle's tragic fate overtook him in 1687 in what is now the State of Texas, and it was not until 1699 that Pierre le Moyne d' Iberville arrived with his colonists and built a fort at what is now Biloxi, Miss., and then another some 40 miles up the river in the present State of Louisiana. For over 60 years the vast territory was held by France, at times as a private grant to individuals or to a company, and again under governors sent by the Crown itself. In 1722 New Orleans became the seat of the colonial government, the *Sieur de Bienville*, heretofore alluded to, having recognized its strategic position and being the first to prophesy its future greatness.

Then came the famous secret treaty of November 3, 1762, by which Louisiana was transferred to the sovereignty of Spain; under which it remained in a more or less "sub rosa" form, until 1768, when the colonists attempted to form the first republic in the Western Hemisphere. This resulted disastrously, for Spain sent over the stern military leader, Alejandro O'Reilly, who suppressed the rebellion with a ruthless hand, coming to New Orleans with a military force of 3,600 troops. In 1769 Louisiana was formally and openly ceded to Spain, and Spanish law and language was substituted for the French. The Spanish rulers sought to govern the city and the whole territory in a wise and liberal manner. They reformed the judicial system,



GRAIN ELEVATORS, NEW ORLEANS, LA.

The grain elevators of New Orleans are among the most modern in the United States. The port of New Orleans has a grain storage capacity of 5,000,000 bushels.



CANAL STREET, NEW ORLEANS, LA.

Canal Street is the main thoroughfare of New Orleans and is in the heart of the business and shopping districts.

encouraged commerce, gave public offices to the French creoles, and encouraged the intermarriage of the French with the Spanish so that harmony and peace prevailed. When the American Revolution started, the Spanish Governor, Bernardo de Galvez, in full sympathy with the American colonists, threw his energies into the struggle, and with his troops captured all the important ports in what was then known as West Florida.

Spain retained possession of Louisiana and its growing metropolis until 1800, when the whole territory was ceded back to France, but it was not until November 30, 1803, that the representatives of France received possession in due form from the Spanish governor in New Orleans, and on December 20 of the same year was consummated the most momentous trade ever made by the United States—the purchase of Louisiana—and New Orleans became a city of this country.

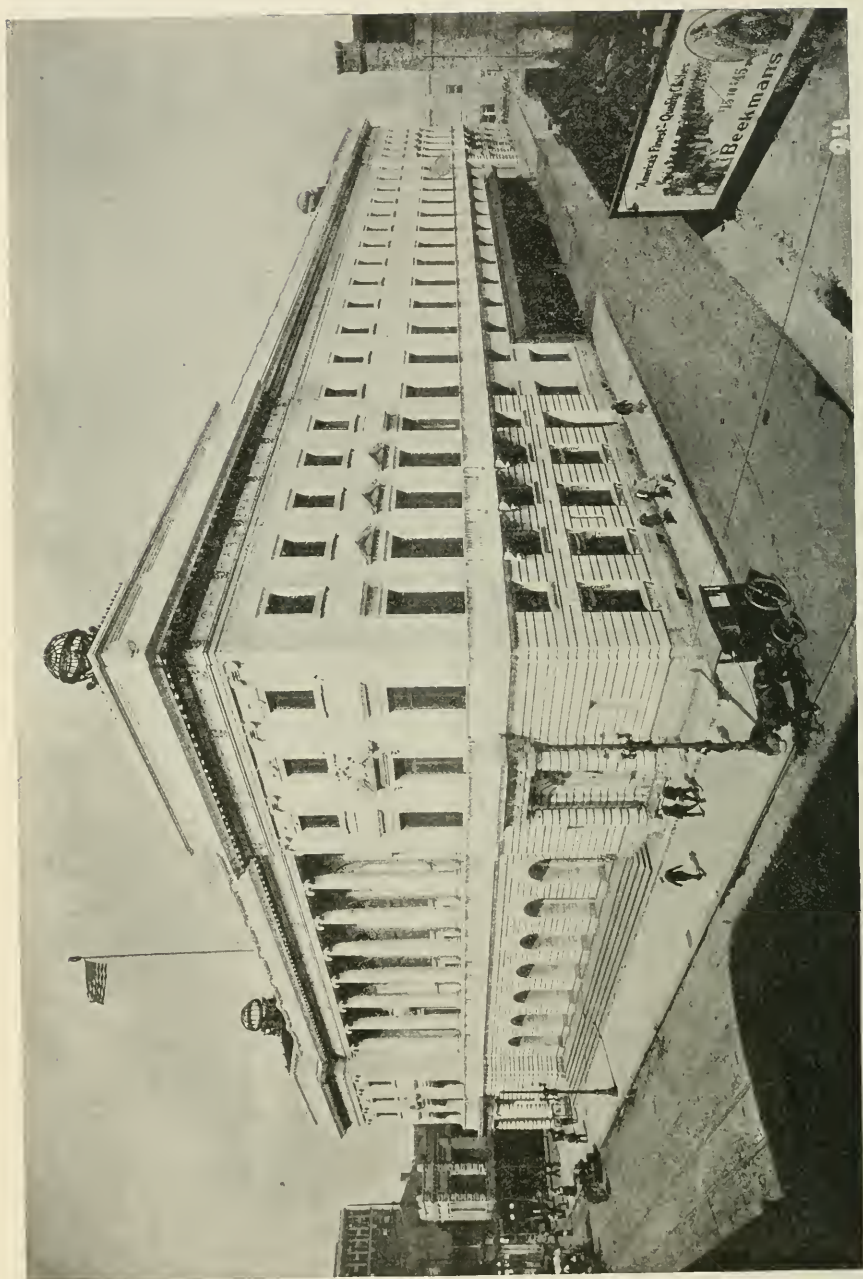
This retrospective glance at its early history will suffice to explain the complicated character of the population of New Orleans, the foreign aspects of some of its quarters, the linguistic peculiarities of its street names, the retention of certain Latin customs, etc. Its later history, including such striking features as the heroic defense of the city by Gen. Andrew Jackson in the War of 1812 when the British regulars under Pakenham suffered their most disastrous defeat at the hands of raw American recruits, the important rôle played by the city in the Civil War between the North and the South, and other notable facts, must needs be omitted from a sketch which has for its purpose a presentation of the present status of New Orleans as a modern city, as a commercial and industrial center, and as the gateway through which must pass most of the foreign commerce of the enormous interior section of the United States.

From the time that white men began to settle in the Mississippi Valley New Orleans has been a prominent factor in the commercial development of the United States. The pelts of the trappers, the crops of the farmers, the manufactured goods of the cities on the Ohio, Tennessee, Cumberland, and other eastern tributaries of the Mississippi, floated down these streams to the port of New Orleans long before the days of steamboat transportation. Then came the first steamboat from far-away Pittsburgh, Pa., to New Orleans, in 1812, a herald of the vast flotilla of river steamers that were soon to plow their various ways from thousands of miles of the interior to the Crescent City. With the invention of the steamboat and the gradual increase of population of the vast Mississippi Valley, the future of New Orleans became assured, and for many years the city has reigned as "Queen of the South."

Located on the Mississippi River, whose system of navigable waterways radiate 13,900 miles through the great middle section of the



BARONNE STREET, NEW ORLEANS, LA.



UNITED STATES POST OFFICE, NEW ORLEANS, LA.

United States, and on Lake Pontchartrain, with access to Mississippi Sound water routes eastward to Mobile, Ala., and thence by the Warrior River to the great coal and iron fields of Alabama, the center of six canals, and the principal terminal of 10 trunk lines of railways operating a total of 145,288 miles, New Orleans has become one of the great industrial centers of the world. Its manufacturing industries have an output of over \$140,000,000 worth of products annually, while as a market center the city distributes \$1,130,000,000 worth of commodities each year, a tremendous trade that is accounted for by the fact that New Orleans is the gateway for the Mississippi Valley, the great producing area of the United States. Comprising 41 per cent of the United States proper, this great section, which includes from an economic standpoint 21 States, yields 82.4 per cent of the Nation's cotton and cottonseed products, 27.9 per cent of its coal output, 62.7 per cent of all the iron ore mined, 67.5 per cent of its live stock, and 31.7 per cent of its total manufactures.

In the harbor of New Orleans is seen a strikingly successful application of the doctrine of public ownership and operation of public utilities. Sixty per cent of the port facilities have been built or developed by the dock board, a State institution. In the 17 years this board has had charge it has expended \$15,000,000 on the wharves, steel sheds, elevators, and warehouses on the east bank. These, with terminals built by the railroads, will give New Orleans almost 8 miles of docks, capable of accommodating at one time 80 vessels 500 feet long. All are served by the Public Belt Railroad, another triumph of public ownership. Assurance of future port expansion without fear of private profiteering is given by the fact that the title to the water front for 41 miles on both sides of the Mississippi River is vested in the public and under the control of the dock board. In addition, the board is now building an inner harbor 6 miles in length, the famous Industrial Canal.

Terminal facilities erected by the dock board comprise 18 of the most modern steel sheds, 17,924 feet in length, 4,257 feet of open wharves, 1,200 feet of wharf at the publicly owned grain elevator, and 1,513 feet of wharf at the publicly owned cotton warehouse; in all, 24,904 linear feet.

Facilities constructed by the railroads comprise 17,140 linear feet of wharf frontage, together with modern sheds, served by 250 miles of railroad trackage. These terminals include Chalmette wharf and slip, operated by the Southern Railway; Stuyvesant docks, erected by the Illinois Central Railroad; Westwego wharf, built by the Texas & Pacific Railroad, and the Southern Pacific terminal at Algiers, on the west bank of the river.



NEW COURTHOUSE BUILDING, ROYAL STREET, NEW ORLEANS, LA.



TULANE MEDICAL SCHOOL, TULANE UNIVERSITY, NEW ORLEANS, LA.

The Medical College at Tulane University has an international reputation. It is especially famous for its courses on tropical diseases.

The cotton warehouse and the grain elevator are the latest developments in port improvements. The former is the largest handling plant for an agricultural product in the world, is the most efficiently equipped structure of its kind in existence, and is a profit-earning institution while serving the public most economically. The storage facilities offered the cotton grower by this warehouse, coupled with the low insurance rate, make it possible for him to hold his cotton until such a time as he may see fit to market it, while at the same time enjoying the use of bankable warehouse receipts that are backed by the resources of the State of Louisiana and are negotiable in financial circles the world over. The demands on the warehouse have increased so greatly that the dock board is now erecting additional storage units to have a capacity of 85,000 bales each. These will give the plant—including the wharfhouse—a storage capacity of 500,000 bales of cotton at one time, or, if the same space is used four times a year, which is a fair estimate, a total annual capacity of 2,000,000 bales.

The publicly owned grain elevator, operated under the supervision of the dock board, is situated on the river at the head of Bellecastle Street and on the tracks of the Public Belt Railroad. It is of the most modern fireproof construction, is equipped with every facility for the efficient handling and storage of grain, and is known as the cleanest grain elevator in the world. The elevator now has a storage capacity of 2,622,000 bushels, with a space allotted for as much additional storage as may be required for future business. The unloading capacity of the elevator is 200,000 bushels per day and 60,000 bushels per day from ships and river barges. The unloading capacity from water craft will be doubled as soon as business justifies. Loading to ships or river barges can be made at the rate of 100,000 bushels per hour—all to one or to four vessels simultaneously. Electric power is used for the entire operation of the plant. The equipment includes an up-to-date dust-collecting system, automatic sacking scales in elevator and on elevator wharf, pneumatic conveyor system for unloading grain from ships and barges, and the Zelaney system to protect grain on store.

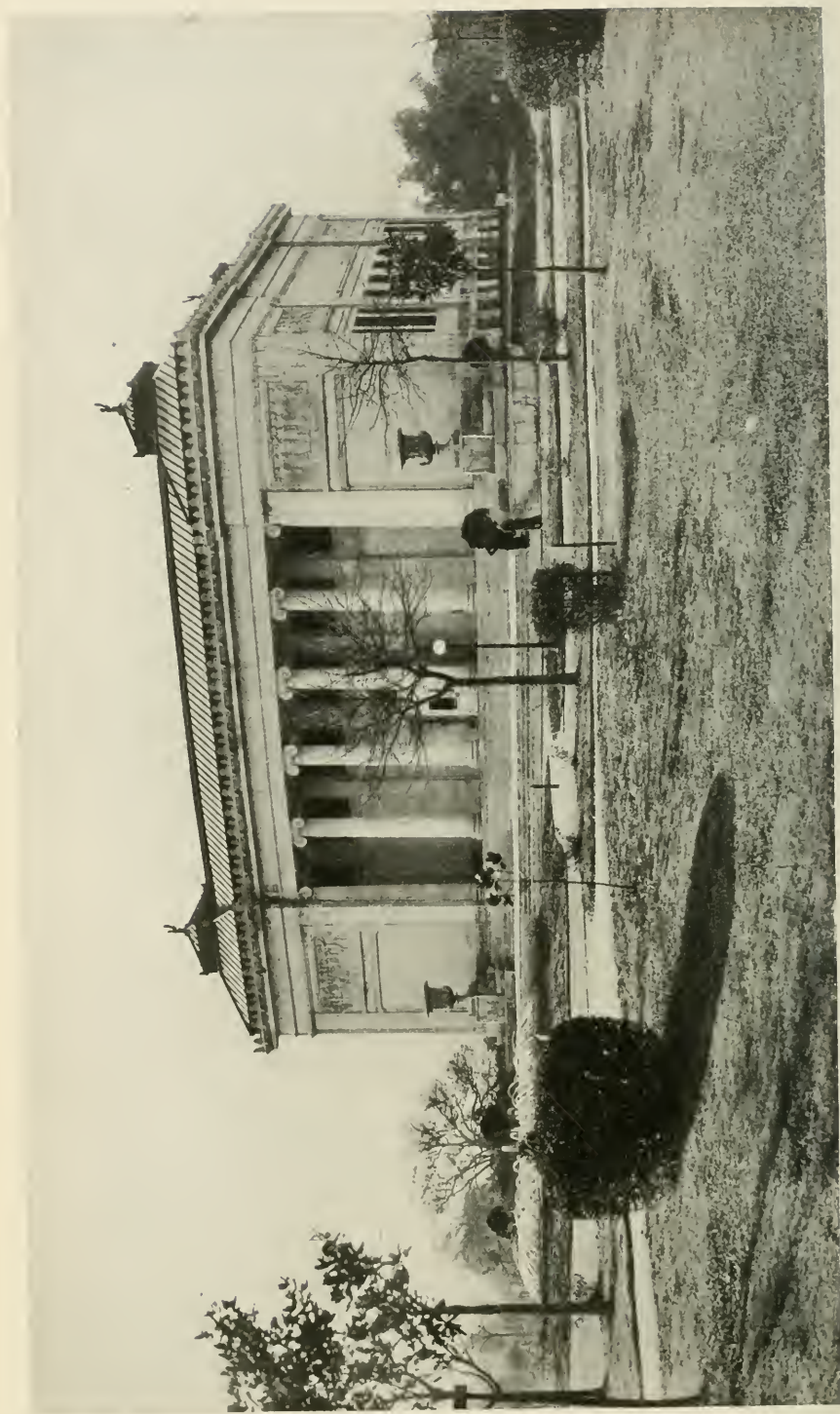
New Orleans has 7 other grain elevators, under private ownership, giving the port a grain-storage capacity of 5,000,000 bushels.

The United States Government, early in 1919, was bringing to completion at New Orleans three multiple-story reinforced concrete commodity warehouses which will have approximately 1,603,000 square feet of floor space. These structures will be equipped with the latest mechanical labor-saving devices for the handling of various commodities, and will be served by the Public Belt Railroad, with ample trackage for receiving and shipping all classes of merchandise. In front of the warehouse there will be a wharf approximately 2,000



TULANE UNIVERSITY, NEW ORLEANS, LA.

The Tulane University of Louisiana has a College of Arts and Sciences, Technology, Teacher's College, a Law Department, Medical Department, and a Department of Pharmacy. It is named after Paul Tulane, a merchant of New Orleans, who gave \$1,000,000 for the "education of white young persons in the city."



THE ISAAC DELGADO MUSEUM OF ART, NEW ORLEANS, LA.

feet long and 177 feet wide, with a 2-story steel shed. There will be two railroad tracks along the front of the wharf and two in the rear.

Two of these warehouses, being built by the Government, will be turned over to the dock board for public service, and will be an important addition to the storage and handling facilities provided by the port of New Orleans. The third warehouse will be retained by the Government as a permanent Army depot.

The port of New Orleans is one of the safest harbors in the world, and provides practically unlimited anchorage space. Vessels are usually anchored in the lower part of the port, the depth of water being 60 to 80 feet at low stage. From the city of New Orleans to the Passes opening into the Gulf there is a depth of water from 60 to 90 feet. In the South Pass there is a 30-foot channel at mean tide, and at extreme high tide a depth of $31\frac{1}{2}$ feet. The Government is at present at work creating and maintaining a 35-foot channel.

The only municipally owned and operated railroad in the United States is the Public Belt Railroad of New Orleans. The purpose of the Public Belt Railroad is to supply adequate, economical and non-discriminating switching to all who require and can use the same. The municipally owned road assumes the obligations of a common carrier, operating under appropriate traffic rules and regulations. At the present time the operations of the road are confined to the active commercial river front, to industries in contiguous territory, and to the extension recently made in the rear of the city. Ultimately the entire city will be belted, bringing the outlying districts into close touch with the shipping facilities. New Orleans has 215.65 miles of terminal railroad trackage of which 60 miles belongs to the Public Belt. It is estimated that this trackage provides storage room for 13,500 cars. Twelve separate railroad lines serve the port of New Orleans. The city is also served by 38 steamship lines. With its mechanical equipment for loading and unloading cargoes a ship can discharge and take on cargo at New Orleans inside of three days on the average.

The New Orleans Inner Harbor or Industrial Canal, now in the process of construction, is one of the world's great engineering feats. It connects Lake Pontchartrain with the city's river harbor, and the Gulf. The route from New Orleans to the sea through the Industrial Canal and Lake Pontchartrain will be approximately half the distance via the Mississippi. This canal will furnish ideal sites for industrial plants. The Inner Harbor extending from the Mississippi to Lake Pontchartrain, 6 miles in length, will lie entirely within the city limits and will be served throughout its length by the Public Belt Railroad. The canal is being built by the dock board and will cost at lowest estimate \$12,000,000. The Industrial Canal will make New Orleans the port of deposit and the industrial port of the South.



ONE OF THE BEAUTIFUL RESIDENCES, NEW ORLEANS, LA.

St. Charles Avenue, on which is located this beautiful residence, is one of the prominent resident streets of New Orleans. The tropical trees add a beauty to New Orleans that very few other large North American cities possess.

New Orleans is peculiarly situated to carry on a trade with the countries of Latin America. A glance at the map will suffice to show that this large city of the United States is but a few hundred miles from the countries of Central America and the northern Republics of South America. With Cuba and the West Indies also New Orleans has the advantage of location over other North American ports. Via New Orleans is the natural trade route between the Mississippi Valley and Central and South America.

Between 1911 and 1918 the foreign trade of New Orleans almost doubled. Combined imports and exports for the fiscal year ending June 30, 1911, according to the Department of Commerce, totaled \$239,557,588; for the fiscal year ending June 30, 1918, \$418,536,295. In 1911 New Orleans was the second port in the United States. Temporary loss of that position was due to munitions shipments from other ports and other abnormal wartime conditions. New Orleans also exported munitions of war, but she was compelled to suspend much of her established business—with Latin America principally.

New Orleans is situated in a section of the United States that is rich in natural resources. Louisiana is the second lumber State in the country; ranks fifth in oil, and supplies half the sulphur of the world. Lignite, fine kaolins and clays, and many other minerals are found in the region surrounding New Orleans. Louisiana produces some 20,000,000 barrels of oil a year and nearly half a million tons of sulphur 99.8 per cent pure. The rock salt mines of Louisiana are the greatest in the Western Hemisphere and yield 200,000 tons of this mineral each year. Forty per cent of the cypress left standing in the United States is in Louisiana. The production of naval stores is an important industry of Louisiana. These products include rosins and turpentine, and have an annual value of \$4,500,000. About 80,000 barrels of turpentine are produced each year and 400,000 barrels of rosin. The manufacture of paper products from pine waste and the canning industry are also prominent in Louisiana. There are also extensive deposits of natural gas in the territory surrounding New Orleans. Four gas wells at a distance of only 60 miles from the city were struck at a depth of 3,000 feet and their capacity was found to be 90,000,000 cubic feet each day. This natural gas makes fuel exceedingly cheap for the industries of New Orleans. Fuel therefore is added to other preeminent advantages of New Orleans—raw material, labor, transportation and markets. Ship-building is another industry in New Orleans that has pushed itself to the forefront during the war. Three shipyards are at work in the city limits—three others have been established in the immediate vicinity, and the Government is building here the largest dry dock and ship repairing plant south of Newport News.



SCENE IN CITY PARK, NEW ORLEANS, LA.

Because of the semitropical climate of the city, the parks of New Orleans are beautiful throughout the year. City Park, a reserve of 216 acres, is situated in the old section of the city.

The climate of a city often serves to give an idea of it that other characteristics do not. The palm tree and the pine grow side by side in New Orleans. It is not too tropical, because that would kill the pine; it is not too cold, because the palms could not endure. The average temperature for the last 47 years has been 65 degrees. During the last 43 years there have been only 211 days when the thermometer dropped to 32 degrees or lower. During the same time there have been only 11 days when the temperature was as low as 20 degrees. About once every 10 years there is a gentle snowfall. Although New Orleans is situated in the southernmost part of the United States it is a cooler city than many in the northern part. During the last 43 years there were only 7 days when the temperature went to 100 degrees or higher.

Health conditions of New Orleans are reflected in the remarkably low death rate. Even including the negroes, who comprise a large percentage of the population, the total rate is only 17.54 for each 1,000 population. New Orleans compares very well in this respect with the other cities of the country.

But not all of New Orleans is centered around its water front. There are beautiful residence sections and numerous lakes and parks. Because of its wide streets, extensive lawns, and numerous open squares, New Orleans is called the City of Magnificent Distances. Audubon Park has 280 acres of live oak avenues, palm grove drives, spreading lawns, and canoe streams. City Park, the scene of many duels in days gone by, is a beautiful reserve of 216 acres. Throughout the city are many other parks and squares—each under a separate commission of its own. Still in the city limits, and just 30 minutes' ride by trolley from Canal Street, are West End and Spanish Fort, the special haunts of yachtsmen. West End has one of the finest protected basins for small boats in the country, and the Southern Yacht Club, the second oldest in the United States, has a handsome home here. Spanish Fort is the principal amusement park of the city.

New Orleans not only has grown remarkably in the past but seems to have a greater future before it than faces nearly any other North American city. The great Mississippi Valley has in no way approached the end of its agricultural and industrial development. Its potentialities are unlimited. And as the entire middle section of the United States prospers so will New Orleans, the southern gateway of the United States, prosper also.



LATIN AMERICAN TARIFFS¹

PART II.

AS we have said, the rate of tariff standing alone in any given Latin American country is seldom of much consequence to the prospective American exporter to that country. It is never what he is almost certain, before he has made the experiment, to believe it to be—the determining factor, whether his goods can be advantageously exported or not. He soon discovers that manufactured goods are not excluded from nonmanufacturing countries merely because tariff rates are high; that what he has before learned about the operation of the United States tariff in excluding or limiting the importation of European manufacturers into the United States has no application to Latin American countries where a rate three or four times as high may have little effect on the trade. Having discovered this, he is apt to go to the other extreme and conclude that he can safely forget the tariff. He could were it not for the competition of manufacturers within themselves. The competition referred to is not of the same kind of goods—that is, something used for the same purpose and dutiable under the same tariff classification at the same rate—but of something different but used, or which may be used, for the same purpose and which is dutiable at a lower rate. The competition is not between American and Englishman or Frenchman who make the same thing—for this competition is not touched by the tariff rate—but of anyone who makes the substitute thing. For example: Suppose the duty on wire nails in some country is 4 cents a pound—a very high duty. All wire nails from all countries pay the same rate, so the tariff does not and can not touch the question of competition between American and European wire nails; and it can be taken for granted that even so high a rate would not exclude any considerable quantity of wire nails if all nails, wire or cut, paid the same rate. But suppose the duty on cut nails was only one-half cent a pound. What would be the result? Where there is a free choice, as occurs in countries of manufacture, at prices not too far apart, wire nails and cut nails have somewhat different uses, as every carpenter knows; and it is the same in countries of nonmanufacture if the tariff rate is approximately the same on both kinds. Yet for most purposes one kind of a nail is a substitute, more or less adequate, for the other kind, so that a difference in tariff rates of between 4 cents on one and one-half cent on

¹ By William C. Wells, of Pan American Union staff.

the other will throw practically the whole importation to the side of the nail dutiable at the lower rate.

Machine belting may be leather, hide, fiber, or rubber. Within the class it is of not much consequence that the rate be low or high, but it is of much consequence that the proportional rate of the different classes bear a just relation to the natural demand for each class at the initial price at which it is sold; otherwise one kind of belting will be excluded in favor of another kind. Most things have their substitutes, more or less adequate, or even more or less desirable; for substitute in the sense here used may mean the better for the worse as well as the contrary. All tariffs are in restraint of trade and all tariffs produce a more or less artificial trade condition; but all civilization and all progress is artificial, and the tariff may not be uneconomic. It tends to be so when it is unbalanced, when, as in the illustration given, a country, not itself manufacturing any kind of nails, creates a tariff rate on one kind out of proportion to the rate on another kind.

Latin American tariffs are properly subject to criticism for being, in this sense, unbalanced, thereby favoring one class of goods against a competing class or favoring one type within a class as against a competing type. It may be said that tariffs of other countries are unbalanced, which is true, but ordinarily less unbalanced than Latin American except there be national policies or national interests involved. Latin American tariff want of balance is for the most part without reason or purpose. Like Topsy it "just grew" out of conditions of importation and manufacture now antiquated. The patchings and modifications of the last 20 or 30 years although intended to do so have not kept step with industrial progress, and consequently have done but little to improve schedules. Often these amendments, even when they have removed in part the illogical and unbalanced aspect of the schedule, have transferred in another direction by introducing a degree of uncertainty that did not before exist, making it more difficult for the appraiser to be sure of his work. From the standpoint of both the foreign exporter and the domestic importer uncertainty is, if anything, worse than unbalance.

The use of certain descriptive words as bases of classification in Latin American schedules produces uncertainty. There are a number of such words—*común* (common), *fino* (fine), *rico* (rich), *regular* (standard), *ordinario* (ordinary), and the like—sprinkled all through the tariffs. From the foreign manufacturer's or exporter's end it is impossible to know the tariff meaning of words of this kind, words which in their essence connote a varying significance. The element of opinion or judgment can not be eliminated from tariffs, but its

exercise on the part of the appraiser should be confined as far as possible to a classification by characteristics which have some tangible base. Very few people can judge correctly as to whether cloth is all wool or part wool, or whether the wool is reworked (shoddy) or new wool, yet classifications of this kind are proper in tariffs because the facts are tangible and can be ascertained by anyone competent to make the tests. On the other hand, there is no tangible fact about whether a thing is common, ordinary, fine, or standard; it all depends upon the individual whose judgment is called into play.

Latin American customs officials, with many of whom the writer has discussed this subject, do not ordinarily take this view. The contention is that these words have acquired a technical significance; that the appraiser has no difficulty in appraising qualities as ordinary, standard, or fine, according as these terms are understood and applied in the markets of the particular country. But they are not applied in the same way in all the countries, which fact might be considered immaterial in view of the greater and more material differences that exist between the tariffs themselves; but it is significant that they are not applied alike in all the ports of a single country. For example, the market standards of Bahia, of Rio, and of Porto Allegre, all in Brazil, or of Valparaiso, Iquique, and Concepcion, all in Chile, or of the different ports in Peru and some other countries, are not alike.

But even if it were true that in all Latin American ports these words had acquired technical meanings, and that these meanings were applied with certainty and uniformity—and it must be confirmed that the want of uniformity is not as great as a stranger might expect, although enough to make the case a serious one—yet the words are not proper in a tariff schedule because the technical meanings are unknown and practically unknowable to the foreign manufacturer or exporter. The latter knows if his cloth be all wool, or part wool, or shoddy, and he has a right to expect that the appraiser at the other end of the world will correctly classify it but he can not know whether the appraiser is going to call the cloth ordinary, standard, or fine.

It is the same with the use of national or regional names as bases of classification where the name is intended to be used as descriptive of a quality. Phrases and descriptive terms of this nature are found in nearly all the Latin American tariffs. One of the most commonly used is American or American type (*tipo americano*). In the Uruguayan tariff, under "furniture," words of this kind occur as applicable to nearly every article of furniture. In the chair schedules the word American occurs three times, the word German twice, and the words French, Italian, and Vienesese each once, as descriptive of certain kinds of chairs differing in duties payable from other kinds. It may be true—no doubt it is to some degree—that in the Montevideo

market, American, or German, or French, or Vienesese chairs have certain distinct characteristics which are tangible enough to be made the base of a distinct tariff classification, but it is not true where the furniture is made. Nationality has not a permanent stamp in furniture.

It must be understood that these words of nationality or of region are not used in the Uruguayan or in any other Latin American tariff as making dutiable at different rates goods from the United States, Germany, France, etc. The words are used as meaning types, qualities, or kinds differing from other types, qualities, and kinds. The objection is that they are not understandable anywhere except at the market of importation, where the types are all brought together, if indeed they are understandable there. The American or French exporter does not know and can not know which one of the hundred various types of chairs made in the United States or made in France it is that the Latin American customs appraiser will appraise as "American" type, or "French" type. The American or the French manufacturer does not know any such types.

Unbalance and illogical phrasing are the two chief defects in all Latin American tariff schedules. These defects are technical and ordinarily do not reflect any policy whatever. They are the resultants of a want of skill in drafting and a failure to keep the tariff abreast with inventive and improved methods and materials of manufacture.

The effect of not keeping a tariff in a reasonable degree abreast of invention has much more serious consequences in nonmanufacturing than in manufacturing countries, and these consequences extend beyond the immediate tariff field.

It is quite possible for a nonmanufacturing country through an antiquated tariff schedule to exclude itself from the benefits of new invention to the extent of seriously handicapping the progress of that country. Descriptive terms in tariff schedules out of keeping with modern invention and manufacture may so burden the new in favor of the old as to force a continued use of the latter to the national loss. It is as if by a prohibitive price the farmer were driven to use a mower where he needs a binder, or a lumberman a hatchet where he needs an ax. No Latin American country consciously does this, but many of the old schedules have this effect. No better example of this can be found than in the treatment of foods preserved in tins as against foods otherwise preserved. One does not have to go back more than 30 or 40 years to arrive at a period when tinned foods, meats, vegetables, and fruits, were luxuries. Tinning and bottling was confined to a few high-class specialties which did not enter into competition with the staple foods preserved by drying or

salting. This has all changed, especially in the United States. The great bulk of tinned foods are no longer luxuries, but enter into the ordinary subsistence of rich and poor alike.

Latin American tariff schedules applicable to tinned foods were drafted at the time when these articles were high-grade luxuries, and in the main the schedules have not been modernized to meet the changed condition under which the bulk of these articles in other countries have become staples. By force of the tariffs alone these goods remain luxuries in nearly all the Latin American countries.

As luxuries, very properly, the classifications and the rates synchronized those of other food luxuries, but as staples the whole classification and rating is out of joint. This is said without regard to the question of protection of the home-canning industry. If any Latin American country should think it to be advantageous as a matter of policy to encourage the establishment of such an industry through high tariff rates it would be necessary to reclassify the old schedules on a modern basis. As it is, the antiquated schedules prevent the importation, except in small quantities, of healthful foods especially needed as aids to the industrial development of these countries, and do not form a base for the building of a domestic canning industry. These schedules are a real handicap equal to that of a man who needs an ax being forced to use a hatchet.



BIRDS OF BRAZIL¹ . .

A PART, perhaps, from the forests of New Guinea, Borneo, and other great island continents of the East Indian Archipelago, no part of the world holds a greater charm for the ornithologist and explorer than the wilds of the Republic of Brazil. Its marvelous bird fauna—by no means wholly known or described—has furnished material for descriptive naturalists and pictorial illustrators for more than two centuries past. In as much as the topography and vegetation of this great region of the globe is wonderfully diversified it is only natural that we expect to find a correspondingly rich assemblage of bird life; that the majority of the species should present strikingly brilliant plumages goes without the saying, as the greater part of the Republic lies within the Torrid Zone, and tropical birds are, as a rule, celebrated for their beauty and high coloration. Taking the water and land birds together the number of species and subspecies run far up into the hundreds; and, while many are confined strictly to the country's avifauna, there is large number of others that, at various times and seasons, pass to greater or less distances beyond her confines. Upon the other hand, not a few birds found in Brazil also occur over a greater or less part of South America; even forms belonging to the North American Continent—more particularly those of Mexico and Central America—extend their range at certain times of the year so as to pass into various parts of Brazil. Within these parts the character of the resident birds, both specific and general, is in a large measure determined by the altitude as well as by the vegetation of any particular region.

In the mattas or heavy forests which cover, to a considerable extent, the immense northern lowland areas, as well as certain similar regions in the southern and central parts of the country, we meet with very different species of birds from those found in the *atinga* sections; that is, in the more or less open forests of lower-growing trees which occur on the highland slopes—mostly trees that in the dry season drop their leaves as do ours in the autumn. Still other kinds of birds are found in the *campos geraes* sections, as there are in the agricultural coast region or *beira mar*, and in the *sertão* or the general interior of Brazil, where the *campos geraes* are located. It was in the southern parts of these that the rhea, or American ostrich, once ranged in thousands, the bird having since been nearly exterminated for its feathers. Two other species of these ostrich birds are

¹ By R. W. Shufeldt, M. D.



Courtesy of New York Zoological Society.



RHEA OR SOUTH AMERICAN OSTRICH AND ITS EGGS.



MACAW.

The macaw is one of the most beautiful birds of Brazil. Thousands of these are captured each year for display in zoological gardens and aviaries. There are many species of this bird in the unexplored parts of the continent that have yet to be described.



BRAZILIAN HERMIT HUMMER.

The humming bird constructs very elaborate nests and as a rule lays only two eggs no larger than a small bean.

found in South America—namely, Darwin's rhea and the large-billed rhea, the last two being Patagonian forms. *Rhea americana* is readily distinguished from the African ostrich, having one more toe upon either foot and lacking the fine plumes of its Ethiopian relative. It is hardly necessary to add that it is the largest bird, many times over, in the Brazilian avifauna.

With respect to this matter of size in various groups or families of birds, it goes without the saying that in certain natural assemblages of them we meet with species of immense proportions as compared with others found in more or less remotely affined cohorts; and when this is the case, the smallest species of any particular group thus compared is usually what would be considered a sizeable form. As in the case of this rhea, for example, there do not appear to be any closely related Brazilian types of smaller size in existence, though some say that the famous tinamous (birds that lay those gloriously tinted eggs) are near congeners of the ostrich groups, which is by no means true. With respect to the tinamous in South America, the Brazilian species resembles some sort of a big partridge or grouse, while others are not much larger than a quail. In fact, they have a gallinaceous streak in them, being present-day survivors of an ancient galline stock, possessing an anatomical structure in accordance therewith. They are excellent eating, and are being rapidly killed off in certain sections.

But to return to this question of size, or its variation in certain families—we may note an excellent example of it among the birds of Brazil in the raptorial group, where we find such a formidable species as the harpy eagle associated with diminutive falcons or small hawks no bigger than doves. On the other hand, in some families, and large families, too, the variation is comparatively insignificant—a fact that may be appreciated upon viewing a collection of humming birds from that country. Brazil has long held the palm with respect to the number of species of these little gems of the air in her bird fauna. There are several hundred kinds of them occurring in various regions of the Republic, and they have long been famous for their extravagant beauty, together with the remarkable forms and feather development seen in many species. More than this, these humming birds, or “hummers,” as they are sometimes called, construct nests of great delicacy and elaboration, in which, as a rule, they lay two entirely white eggs, often no larger than a small bean. Some species of these hummers are found in the higher altitudes; some in the low countries, and still others are confined to forest regions. Millions of them have been killed for the markets of Europe and America, to be used for ornamental purposes, while thousands of others are found in public and private ornithological collections. Anatomically, several of the genera have been described by the present writer, and their affinities compared with the corresponding ones in other birds.



THE HARPY EAGLE.

The harpy is not only found in Brazil but also in Mexico and the northern parts of South America. It is notorious for the number of quadrupeds it kills. The reproduction given here is of a harpy eagle for many years in captivity at the United States Zoological Park, Washington, D. C.

Speaking of the harpy eagle, it is interesting to know that last year (1918) there was a fine example of the bird in the National Zoological Park at Washington. It did well for several years, but suddenly succumbed to some unknown cause one day. Through the kindness of Mr. Ned Hollister, the superintendent of the park, a fine portrait of this bird illustrates the present article. The writer has studied its skeleton, and this will soon be published by the Bureau of Science at Manila. The harpy is not only found in Brazil, but also in Mexico and the northern parts of South America; and it is notorious for the numbers of quadrupeds it kills and devours, especially the young of certain deer, many monkeys, sloths, and the like. Years ago a living specimen was being taken to London, and it killed and ate a splendid king vulture which was confined in the same cage. With one stroke of its powerful foot the harpy has been known to break the back of an animal as large as a cat, and it is claimed that it can break a man's skull in the same way, or even by a blow from its beak. It is usually found along the edges of the forests, or hunting for such quadrupeds as frequent the banks of rivers. Should a man approach it seems to have no fear of him; on the other hand, it awaits his coming with a defiant mien remarkable to behold.

There are many interesting falcons and owls in the avifauna of Brazil, but space limitations prevent their being further touched upon in the present connection. This likewise applies to the wonderful array of water birds that haunt her seacoast and great rivers. Among the latter are many ducks, teals, and other aquatic fowl, a fine example of the Brazilian teal (*Nettion brasiliense*) (Gmelin) being shown among the cuts to this article. This most excellent piece of taxidermy is the work of the veteran artist of the United States National Museum, Mr. Nelson R. Wood, who also mounted a few others of the birds here illustrated, notably Cuvier's toucan, the Cujubi guan, and others. Mr. Wood has long led the school of taxidermy in America with his wonderful productions, especially among the gallinaceous birds, the pigeons, parrots, and many others. The photographs of these specimens were made by the writer through courtesies extended on the part of Mr. Ravenel and Dr. Benedict, of the National Museum's staff. The collection of mounted birds in that institution is one of the grandest and most beautiful in this country, and probably has, in not a few respects, no rivals abroad.

Along the coast and up the great Brazilian rivers may be found a wonderful variety of waders, some being restricted to the country, while others have more or less extended ranges. Among the birds in mind may be mentioned the spoonbill; various herons (one or two of which exhibit great beauty of plumage); the boatbill (see cut); the jabiru, an immense stork-like species; flamingoes, and ibises of sev-



TWO BRAZILIAN BIRDS.

Upper picture: The Brazilian teal, an aquatic bird of South America. Lower picture: Cuvier's toucan. The toucan occurs in many parts of Brazil and in the Guianas also. It is a bird of beautiful colors and with an average length of about 24 inches.

eral kinds. Cranes are more properly arrayed among the land birds. The boatbill (*Cochlearius cochlearius*) possesses habits very similar to those of our common night heron—a bird that has been so frequently described in popular literature that every intelligent person must be more or less familiar with it. The boatbill is not a large bird, having a bulk of body about equal to that of a domestic chicken of the larger variety. "Its beak resembles a boat reversed," says a popular writer at hand, "having a strong ridge or keel down the middle of the upper mandible, and the sides spread out and bowed. In the male, the upper part of the neck and breast are dirty white; the back and lower part of the belly rusty-reddish. The legs and feet are brown. From the head depends a long crest of feathers, falling backward.

"The female has the top of the head black, without the elongated crest; the back and belly rusty-reddish; the wings gray; the forehead and the rest of the plumage white; the bill, legs, and feet brown. This species inhabits Cayenne, Guiana, and Brazil, and chiefly frequents such parts as are near the water. Here they perch on the trees which hang over the streams, and, like the kingfisher, drop down on the fish that swim beneath. They also feed on reptiles and crabs, whence the French name of crabier, or crab-eater. Night is the season of their activity. Their sight is acute and their stroke surprisingly rapid. Their body is light, their wings ample, and their flight lofty." At this writing there is a fine living example of the boatbill in the Zoological Park at Washington, where its habits in captivity may be studied with advantage. This is also true of the king vulture mentioned in a previous paragraph—a very handsome bird, notwithstanding the fact that it is a prince among avian scavengers.

One of the most conspicuous storks of the country is the big, white fellow named by the Brazilians the jabiru. This bird is nearly 5 feet in height when fully grown, its black head and neck being among its more striking features. Dr. E. H. Sellards, State geologist of Florida, has recently described an extinct fossil jabiru-like bird of great size, found in the Vero deposits of Florida.

Flamingoes occur on the Brazilian coasts; but we stand in need of an exhaustive account of their habits there, and the same may be said of the beautiful scarlet ibis, which latter, in former years, has been occasionally seen on the southern coasts of Florida. Other ibises, such as the glossy species, also find places in the Brazilian avifauna.

In a way related to the duck tribe and their allies among the geese and swans is the extraordinary bird known as the "screamer." This curious fowl is about as big as a turkey and has earned its name through the remarkable nature of its notes, which are of great strength



BOATBILL.

The boatbill is not a large bird, having a bulk of body about equal to that of a domestic chicken. The species inhabit Cayenne, Guiana, and Brazil.



CUJUBI GUAN.

The kujubi guan inhabits the lower Amazon region. The bird is not easily domesticated, but some species will often interbreed with common poultry.

and far-reaching. More than this, the bird possesses a long and peculiarly constructed "horn" on the top of its head, as well as big spurs on its wings. For this reason it is also known as the horned screamer (*Palamedea cornuta*). Its ally, the crested screamer, is another species found in southern Brazil, where it is known as the "chaka." It has no "horn," and it is notably smaller than the first-named species.

The female of the chaka builds a nest of rushes, partly in the water, and lays from five to six buffy-white eggs. Young birds are down-covered and brownish-white in color. Old birds possess a series of air cells between the skin and muscles, causing a crackling sound to be given off when the bird's body is pressed. "A most singular habit," says Newton, "possessed by this bird is that of rising in the air and soaring in circles at an immense altitude, uttering at intervals the very loud cry of which its local name is an imitation. From a dozen to a score may be seen at once so occupying themselves. The young are often taken from their nest and reared by the people to attend upon and defend their poultry—a duty which is faithfully and, owing to the spurs with which the chaka's wings are armed, successfully discharged."

The fowls known as curassows are interesting, while even more so are the birds called "trumpeters" or trumpet-birds, so named from their peculiar notes. There are several species of them (*Psophiidae*). The common form is as big as a barnyard hen, with longer legs and neck. The general plumage is black with changeable violet shades on the sides of the neck. They possess not a few most extraordinary habits, and we still stand in need of reliable as well as exhaustive accounts of these. It is semidomesticated by the natives, in which state the trumpeters become remarkably fond of the domestic stock, as the fowls, sheep, and the rest.

Even more remarkable than the trumpeters is the bird known as the sun bittern (*Eurypyga helias*), a form about the size of an average dove. Its wings and tail are both unusually developed, and its plumage coloration extraordinary. It at times goes through some fantastic dances, during which it spreads out its tail and wings in the most curious manner imaginable; indeed, it would fill the soul of an Argus pheasant with envy to see it. It would require a full page of the present article to in any way do adequate justice to the plumage of a male of this species when in full feather. After half completing the task of describing it, Newton wrote: "The rest of the plumage is not to be described in a limited space otherwise than generally, being variegated with black, brown, chestnut, bay, buff, gray, and white—so mottled, speckled, and belted either in wave-like or zigzag forms as somewhat to resemble certain moths." We still stand in need of good descriptions of its habits in nature.



THE HOATZIN.

The hoatzin is one of the most unique birds on the South American continent. It lives in low trees and shrubs along the shores of the Amazon and rarely takes to flight.

Occupying a somewhat different domain, we may next notice one of the most interesting birds that any region of Latin America has to offer for our consideration. This is the far-famed seriama, or, as it is sometimes written, cariamama, either word being an attempt to express its usual cry. It was first figured and described by Maregrave in his work, which was published after his death by De Saet in 1648. This form has frequently been kept in zoological gardens, and at this writing there is a fine one living in the Zoological Park at Washington, where, to some extent, its habits and certainly its appearance may be studied. Its natural habitat within Brazilian limits are the campos or elevated sections from Pernambuco, as far as the Rio de la Plata. Formerly it was found inland, as far as the Matto Grosso, and may be still. From time to time, too, a limited number has been observed in the neighboring parts of Paraguay. Those who know a seriama are aware of its being a crested, grayish bird, of some 2 feet in height. "It lives in high grass," says Newton, "running away in a stooping posture to avoid discovery on being approached, and taking flight only at the utmost need. Yet it builds its nest in thick bushes or trees at about a man's height from the ground, therein laying two eggs, which Burmeister likened to those of the land rail in color. The young are hatched fully covered with gray down, relieved by brown, and remain for some time in the nest. The food of the adult is almost exclusively animal—insects, especially large ants, snails, lizards, and snakes; but it also eats certain large red berries." (Dict., pp. 827, 828.)

In addition to the seriama, Brazil possesses at least one very elegant species of guan in her bird fauna, which is here figured in one of the cuts to the present article. It is the *cujubi guan* (*Pipili cujubi*) (Pelzeln), of the lower Amazon region. Most guans are arboreal in habits, agreeing in this respect with the curassows. They may be partially domesticated, and only rare instances of it are known. Indeed, we need a much fuller account of the family than we at present possess of this valuable bird. One thing we do know, however; various species will often interbreed with common poultry, and some of the hybrids possess certain valuable characteristics.

Passing from the guan group to the hoatzin, we have before us one of the most unique bird forms on the entire South American Continent—one that doubtless has had the most written about it, or at least quite as much as any other bird. This literature has appeared in many tongues, and is very generally distributed through ornithological works. Anatomically the bird presents some remarkable characters, and a few of these point to the affinities which the hoatzin (see cut) possesses for the more generalized gallinaceous fowls. In a special case there is in the United States National



THE HAWK PARROT.

Several species of parrot, all noted for their gorgeous plumage, strange habits, and other peculiarities, are represented in the bird fauna of the naturalist's paradise of Brazil.

Museum a magnificent mounted group on exhibition, giving, in addition to the several adult specimens it contains, both the nest and the very young, the topographical anatomy of which latter the writer has published in an illustrated account in the *Journal of Morphology*. Dr. Lucas has also given us some valuable information along similar lines. Bates has pointed out in his *Natural History of the Amazon* that the hoatzin lives in loose bands along the banks of streams and rivers, where it inhabits the low trees, big bushes, and shrubs. Rarely does it take to wing, and when it does its flight is seen to be of a very weak character. Its food consists principally of certain wild fruits and leaves (*Psidium* and *Montrichardia*). "Its voice is a harsh, grating hiss, it makes the noise when alarmed, all the individuals sibilating as they fly heavily away from tree to tree, when disturbed by passing canoes." Up in British Guiana they call the hoatzin the "stink birds" on account of the musky odor its body gives off. Young hoatzins have a claw on either index digit; and by means of this, aided by their big feet, they are enabled to make progress at an early stage of their existence among the twigs and small branches of the trees wherein their nests are built. Many Brazilians know this species as the gypsy, or *cigans*, and nobody seems to regard the species with much favor.

Perhaps the largest snipe in the world occurs in Brazil, and it has habits quite similar to those of the "jack snipes" of England and America. Apart from its size, it closely resembles the "Wilson's snipe" of North America. This giant snipe (*Gallinago gigantea*) is also found in suitable localities in Paraguay.

Another very interesting water bird is the jacana, with its greatly elongated toes, by means of which it is enabled to run over the lily pads and other vegetation occurring in the waters where it lives. Its eggs are remarkable for the beauty of their rich olive-brown tints and peculiar markings.

A few beautiful wild doves and pigeons occur in certain parts of Brazil, while such interesting birds as the umbrella bird, the bell bird, and the gorgeous, orange-colored cock-of-the-rock are so well known as to obviate the necessity for more than a mere mention in this connection. Sometimes where these three forms severally occur we meet with a species or two of the cuckoo group, and in still other places with the related form known as the ani (*Crotophaga ani*), the females of which build a common nest in which to lay their eggs, their mode of living being decidedly of a communal character. These birds are black, with transversely flattened beaks.

A big, illustrated volume might be written on the next group of birds to be noticed—the wonderful and far-famed toucans (see cut), a name apparently of Brazilian origin. Some 60 or more species of



MATTO GROSSO WOOD SPARROW.

The matto grosso wood sparrow inhabits western Brazil. It is one of the plainer colored birds.



KING-OF-THE-FLYCATCHERS.

There are some truly wonderful flycatchers in the host of beautiful birds of Brazil. The king-of-the flycatchers is one of the handsomest.

these birds have been described from various Latin-American countries, the type of them being the toco (*R. toco*), which not only occurs in many parts of Brazil but in nearly all sections of Guiana as well. It is a large form with a length of some 24 inches. Its great beak has been likened to the claw of the lobster, it being of a rich orange color, with a large, oval, black spot on either side of its apex. Black is the general color of its plumage, while the throat is white, the upper tail coverts being the same, with lower ones scarlet. But the great beaks of these toucans, as well as their plumages, vary greatly, and it would be impossible to describe them here in detail. Often the bills are very highly tinted, and the eyes and skin parts about them equally so. Males and females are pretty much alike, but the former is the larger bird. Upwards of 20 species of them occur in widely separated districts of Brazil, all having pretty much the same habits. They have long, feather-like tongues, and many possess the habit of tipping the tail forward, as shown in my figure. When asleep this part of the plumage is pressed flat on the bird's back, and, turning its head, the great, very light beak rests there also, pointing in the opposite direction. Many of their external characters are truly remarkable; for example, having the feathers on the top of the head shiny black, and curled up like minute shavings. Another is the square, curious, ivory-like plate on either side of the beak; no other bird in the world possesses anything like it. We know something of their osteology and other systems of anatomy, but a far greater amount still remains to be mastered and given to the world. Toucans thrive well, as a rule, in captivity; so we often see them in zoological gardens.

Several curious species of nightjars, allies of our goatsuckers, whippoorwills, nighthawks, and their congeners, are also natives of Brazil, and their habits, nidification, and distribution have been described by many writers in the past, as they probably will be by our ornithologists of the future. One species has a long and greatly forked tail, with a half ring of ruddy feathers at the back of its neck; others possess plumages that are very attractive to the eye and pleasing to the casual observer.

More beautiful than any nightjar, however, are the elegant trogons of the forest districts of this country. They are birds of moderate size, the plumages of the males being of a most gorgeous character, akin to that of the celebrated quezal. Trogans occur in Asia and Africa; still others are found in Mexico and in the Latin-American States south of it. There is at least one Cuban species. In size they all range between that of an average thrush and a crow. Many years ago the present writer gave an illustrated account of the skeleton of one of the species in the *Journal of the Linnean Society of London*. Huxley and W. A. Forbes have given similar accounts of



BRAZILIAN CARDINAL.

The red-headed cardinal is taken often from its natural habitat and sold in bird stores. It is famous for its song of clear and beautiful notes.

others, while Prof. Alph. Milne-Edwards has described a fossil one. Their whole history, as we command it up to date, would be a volume of unusual ornithological interest—one which some capable writer of the future should compile.

Several macaws, with many parrots and their allies, all noted for their gorgeous plumages, strange habits, and other peculiarities, are represented in this most extensive and varied bird fauna of this Brazilian naturalists' paradise. (See cut.) It is entirely out of the question to enter upon descriptions of these here, as their number, ranges, and kinds form a wide field for description in itself. Fortunately, not a few of them are well known, while many species yet remain to be described, as they must occur in the still unexplored parts of the Republic. It goes without the saying that many thousands of these are captured for display in public zoological gardens, private aviaries, or pets in families, to say nothing of the thousands that pass into ornithological collections all over the world. Parrots and macaws, however, are not the only Brazilian birds sought for such purposes; myriads of her small birds are annually taken, to be sold by dealers and bird stores throughout the universe. One of the best known of these is the red-headed cardinal, the feathers of the head being drawn out into a conspicuous crest. The writer owned a pair of these birds for a long time, and their clear and beautiful notes frequently attracted the attention of the entire neighborhood. One of them is shown in the accompanying cut, reproduced from a photograph by the author.

When Prof. Alfred Newton, F. R. S., published his "Dictionary of Birds," he pointed out, on page 330, that Brazil had 396 genera of birds within her boundaries, 43 of which were peculiar to the country; that list has probably since been augmented. However that may be, it will give the reader some idea as to the number of species in her avifauna and the impossibility of even listing them here, much less saying a word as to the size, appearance, habits, and distribution of many of them.

Scores of these birds are found among the glittering array of tanagers, motmots, jacamars, troupials, finches, barbets, and no end of others. There are some truly wonderful flycatchers in this great host of lovely forms, and no handsomer one than the famous king-of-the-flycatchers. (See cut.) The cotingas and magpie shrikes are still others; while of the small, thickbilled sparrow and finch group, and manakins, there seems to be no end. Among the plainer varieties of the first named may be mentioned the matto grosso wood sparrow. (See cut). This specimen was taken by Dr. James E. Benedict, chief of exhibits of the United States National Museum staff.

Brazil has one of the smallest forms of woodpeckers known, together with a number of other remarkable species of that interesting family of birds.

COMMERCIAL AND INDUSTRIAL EDUCATION IN CHILE¹

IN Chile, as in all Latin American countries, commerce, until recently, did not constitute a profession. It was rather an occupation learned in the traditional practice of small businesses. During the seventeenth and eighteenth century business was in the hands of individuals who did not belong to the aristocracy, and who had come to Chile seeking their fortune, when the work of conquest allowed sufficient peace and tranquillity for the pursuit of commercial activities. In those times direct exchange of commodities was the rule, on account of the scarcity of money.

As the aristocracy devoted itself preferably to agriculture, which led to dominion and wealth, those who in the centuries referred to and in the beginning of the nineteenth century, made fortunes in business, founded families which hold to-day a most influential social standing. Many of those fortunes were built up from the trade in dry goods, household utensils, and all articles of consumption. These in time allied themselves with agriculture, dispossessing little by little the nobility from their lands or mixing with it through intermarriage. It may be said that the dominant element in Chile to-day is composed of the descendants of those who were originally tradesmen—and sometimes even smugglers—and not from the genuine descendants of the conquistadores or landowners.

But even as recently as 20 years ago it was still considered improper for the young men of well-to-do families to devote themselves to trade, which had been relegated to foreign hands. Then began the subdivision of her agricultural estates, the mania for holding government positions, the abuse of the liberal professions, the exploitation of mines, and, above all, the affluence of English, French, and German merchants.

The Chilean native claiming any sort of pedigree looked upon the commercial professional with disdain and characterized it with names of contempt, such as, "despachero" or "tendero." The clerks of the large commercial houses and the storekeepers were generally foreigners, and they are yet. English, French, Spanish, Italians, and a few North Americans are in the wholesale houses, and Spanish or Italians in the retail business.

¹ By Senor Felix Nieto del Rio, Chilean Information Service, New York.

Only what is called commercial brokerage—that is to say, the commission business, the rôle of middle-man in certain transactions—was taken up by Chileans on account of the facilities afforded by speculation for making money quickly—a tendency which is very common in our Latin American race, which in itself is little persevering by nature and fond of quick success.

The general development of the country has been remarkable within the last few years, and the tenacious campaign undertaken by some intelligent men finally succeeded in awakening in Chile an interest for the commercial profession and eliminating the nonsensical prejudice that there was against it among the well-to-do classes. The Government, realizing the vital importance of preparing men specially for trade, organized educational commercial institutions, which are doing a great deal of good for the country, even though they have not as yet reached the highest degree of perfection. These institutions, both private and official, together with the industrial institutions, have swept away from Chile the antiquated ideas as to the manner of enriching the country; and, thanks to them, the rapid denationalization of industries, which was becoming aggravated, ceased to be a serious problem. The young men of to-day who deviated from the ancestral routine are in Chile a live force whose influence is beginning to be felt in every walk of life, especially in the activities which we call practical.

The press has carried on formidable campaigns, not against the literary or purely cultured education, but against its inconsiderate abuse, which gives as an immediate result a plague of “intellectual proletariat”—that mass of bachelor of arts, of science, engineers, lawyers, physicians, etc., which in Chile, as in France, has sapped the energy of youth. The aim has been to inject the new element into the new life of modern activities and to prevent those new elements from being wasted in unproductive professions and in government positions without future.

What might be called the reeducation of the youth is the work of the commercial and industrial institute in Chile.

In 1917 the Government provided for this kind of education about 1,000,000 pesos (gold) in a general budget for public instruction of 22,000,000 pesos (gold). Here I shall confine myself to giving a few data about some of the institutions, both industrial and commercial. There are in Chile the following establishments of industrial instruction, with the number of students for each in 1917:

Agricultural Institute.....	183
Mining School.....	177
Arts and Crafts School.....	450
Manual Arts School for Girls.....	4,826
Practical Agricultural School.....	305
Manual Training School.....	1,428

There is, besides, in Valparaiso, a new industrial university in regard to which I do not have any data.

In Santiago and other cities of the country there are several industrial schools supported by private funds; for instance, the workshops of San Vicente de Paul for practical and free instruction, which is given to over 300 poor children.

Though Chile is a mining country we lack a number of schools of that industry. The only one in Chile is the School of Mining in Santiago. The course on nitrate industry is given in the University of Chile, and is for postgraduates, and has a wide reputation.

The Catholic University maintains a very important and practical school of agriculture, with experimental farms equipped with all modern improvements. This private university has also under advisement the establishment of a mining school and a school of industrial research.

In the Physical Institute, which is an excellent modern establishment, courses are given in the applied arts and modern trades. The Sociedad de Fomento Fabril (Association for the Promotion of Manufacturers) supports several schools of this kind, one of the most important of which is the School of Ornamental Design. These institutions of industrial instruction are effecting a real transformation in the efficiency of the new generation, and from year to year the Government and private individuals are paying greater attention to this kind of study.

Commercial education and instruction is given in the Government commercial institutions. In 1917 they had a total registration of 3,002 students. The principal commercial institutions are located at Santiago, Valparaiso, Concepcion, Chillan, Talca, Antofagasta, Temuco, and Valdivia, and equipped with all modern facilities and occupy buildings specially constructed for the purpose. The founders and directors have, as a rule, studied in the United States or in Europe, bringing to Chile the latest improvements and methods for commercial instruction.

In almost all cases the methods followed are those of the United States, because when this kind of instruction developed in Chile, commerce with the United States was just beginning to increase. Besides, every year there are sent from Chile to the United States a great number of graduates from these commercial institutes to perfect their knowledge, either in actual business practice or in special schools. Special emphasis is given to the study of English—a very general language in the commercial world of Chile.

The most characteristic tendency in these commercial institutions of learning is that of inculcating in the students the high conception of what commerce is, of its lofty importance in the strengthening of individual and national relations, and of its fundamental significance

for the progress of the country. On the other hand, the teaching of business ethics is a novelty in our countries. In Chile a special effort is made to imbue the students with the conviction that commerce must, above all, be moral—that is to say, based upon the principles of honesty. The aim is to obliterate that theory formulated by the philosopher who said that “Commerce is theft.”

The Chilean commercial institutions give free instruction without distinction of social classes. Their progress is remarkable. In nine years they have more than doubled their enrollment.

The profession of commerce is to-day in Chile a new career for our young men. The large foreign business houses employ almost exclusively Chilean clerks. Every graduate of a commercial institute may secure an important position with such houses, or with the banks and, of course, with Chilean firms.

Inasmuch as the State has not the exclusive rights to commercial diplomas, there are several private commercial institutions which grant the degree of public accountant and manager, etc. There are already a great number of commercial school graduates who occupy high positions in importing and exporting firms, some of them being at the head of well-known houses.

It is a triumph for our country to have at last succeeded in generalizing the idea that the professions of commerce and industry are as noble as the liberal professions. It is a triumph, because in the countries conquered by Spain there remained throughout three centuries that fatal and antiquated prejudice against the dignity of these careers. This would be hard to understand for the modern man of the United States, where, as in no other country, the dignity of labor is held on such a high plane.

And it should be acknowledged that the new spirit of Chile is due, in a large measure, to English and North American influences exerted over a race which possesses certain acquired qualities of push and assimilation.



NAHUEL-HUAPI NATIONAL PARK¹

IN the Andean region lying to the south of the Rio Negro territory, between the natural boundaries formed by Lake Traful, the Manso River, and the snowy mountain range, lies the now famous Nahuel-Huapi National Park, offering to the traveler the charm of the unknown, in a degree perhaps unequaled in any other spot of the Republic. Opposite the Tronador Volcano, which announces its proximity by the thundering roar of descending avalanches, the central lake produces an impression of rare beauty with its picturesque coves, cypress-shaded margins, its dark back waters, its promontories, and its four islands partly covered by vegetation and partly by sheer granite rocks, which at times acquire the phantastic form of ruined fortresses.

From the plateau to the west, situated above the towering porphyritic bulk, flecked with trachytes of amaranth and opal, the bed of an old glacier is discerned, traversed by fissures and crevices now worn smooth. At its right extends the brown plain, bordered next the lake by a wide band of coihues and cypresses, which are reflected in the calm blue water like Gothic spires. And beyond the promontories, beyond the woods through which flow brooks and turbulent rivers, beyond the flowering valleys and glacial tablelands, lies the boundary of the serrated cordillera, dotted with undergrowth, and tunneled by unfathomed abysses seamed with ice and the eternal snows. In the time of the conquest many discoverers made resolute attempts to reach the summits, inspired by the sight of the huge promontories glinting in the sun. Strange rumors, accompanied by fascinating promises, located the fabulous enchanted City of the Caesars here. But, nevertheless, no one had penetrated the mystery before 1670. The Jesuit Marcardí granted freedom to a group of Tehuelches Indians who were prisoners in Chile in return for guiding certain white men through the forest pass. They finally reached Nahuel Huapi Lake, on the northern shore of which they established a little missionary hermitage. For six years the band was protected and shielded by the natives, but at last the mission was attacked and the defenseless foreigners assassinated.

The sanguinary incident discouraged later expeditions until the Chilean, Guillermo Cox, in 1861, set forth to find an interoceanic route. His contemporary, Dr. Moreno, ex-director of the Museum

¹ By Victor Andrés, in "Plus Ultra", Buenos Aires.



Courtesy of Plus Ultra, Buenos Aires.

VIEWS IN NAHUEL-HUAPI PARK.

Left view: Granite obelisk 50 meters in height. Right: Sad Bay (Golfo de la Tristeza) of Frey Lake, one of the many picturesque bodies of water in the park.



MOUNT OSORNO, CHILE.

This beautiful cone has a symmetry and charm excelled by but few of the snow-capped peaks of the entire Andean range. It reminds the traveler of Mount Tacoma, Wash., or of Fuji Yama in Japan. It is situated in Chile, but can be plainly seen from several points in the lake Nahuel-Huapi region.



A PORT OF LAKE NAHUEL-HUAPI.

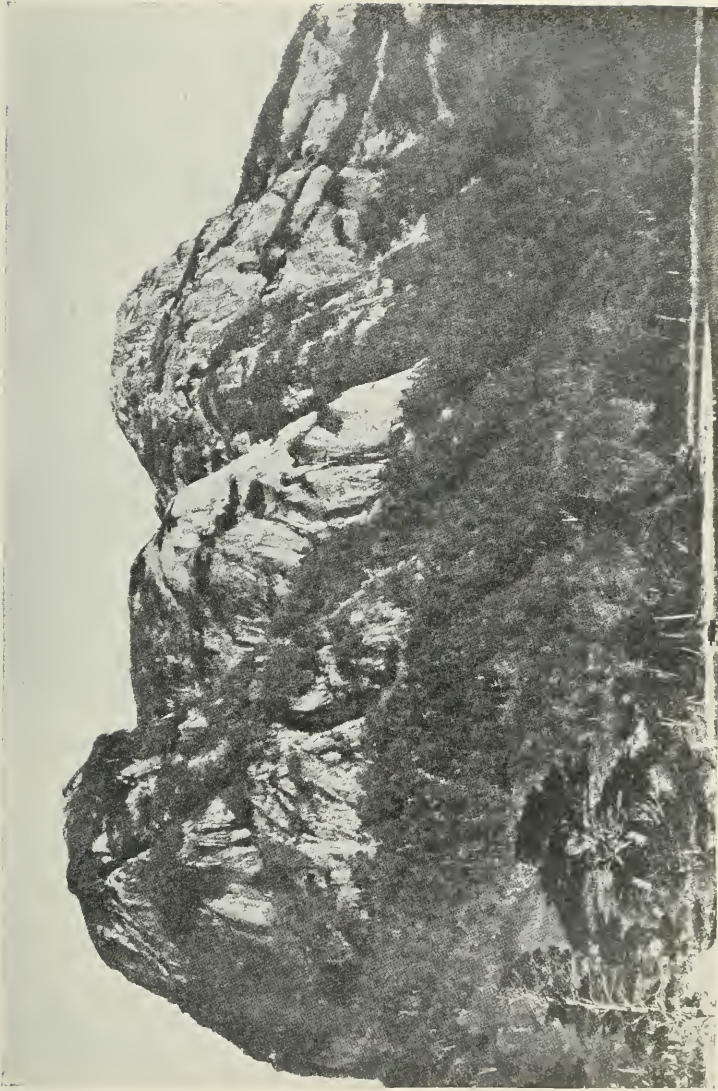
The westernmost extremity of the lake is called Puerto Blest. Here one of the passes across the Cordillera begins and the Chilean frontier is about 8 miles away.



Courtesy of Plus Ultra, Buenos Aires.

MOUNT TRONADOR IN NAHUEL-HUAPI PARK.

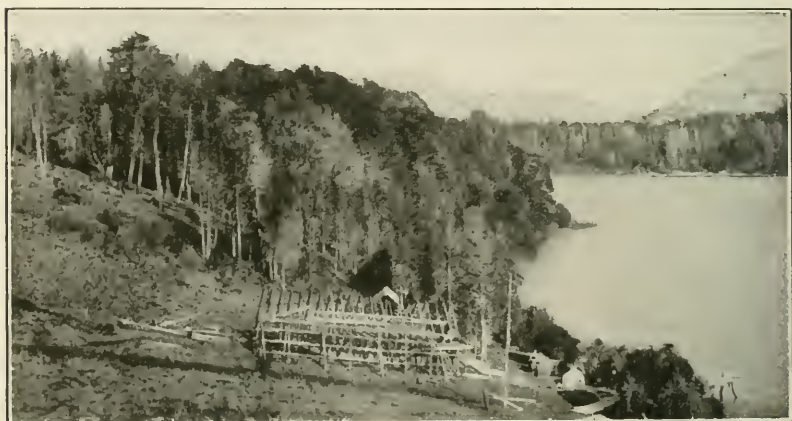
The Manso River has its rise in one of the snow-laden projections of Mount Tronador. The accompanying picture of its source was taken through the clouds.



Courtesy of Plus Ultra, Buenos Aires.

THREE BROTHERS PEAK (CERRO DE LOS TRES HERMANOS).

This noted mass of rock rises, sheer and rugged, almost vertically from the west shore of Nahuel-Huapi Lake.



PANORAMAS OF LAKE NAHUEL-HUAPI, 2,428 FEET ABOVE SEA LEVEL.

The shores of the lake are heavily wooded with pine, while toward the west the snow-capped Andean peaks project themselves against the horizon. Where the banks of the lake are not forbiddingly precipitous, settlers' cottages have been built, giving the region a picturesque atmosphere almost Tyrolean.

of La Plata, also carried out two adventurous expeditions which greatly stimulated interest in and study of the region, which is in every sense comparable to the much-sought peaks of Switzerland. Indeed, we maintain that none of the famous glaciers of the European Continent is superior to the marvelous, transparent sea of ice, presided over by the Fitz-Roy Volcano. The mountains of the Andean Range are more abrupt, sterner, more untamed. The same may be said of the impenetrable forests, in which grow the laurel and the coihue, which attains a height of 115 feet, and the dense underbrush and tree trunks twine about, forming dark labyrinths. San Martin and Trafalgar Lakes, and all the other bodies of water that adorn the icy paradise of the Andes, also are imposing with their porphyritic bulks, their rocks and deep purple mountains, encrusted and tarnished with black, the concave surface illumined by the sun, and revealing streaks of green lichens and petrified fragments.

In the midst of the riot of verdure and barrenness of rocks nestles Nahuel Huapi National Forest, 100 square leagues in area, in which Mount Tronador, a veritable giant of the geologic age, frequently makes the earth tremble with its awesome roaring.

WRITERS OF HONDURAS¹

THE land which produced the scholar, José Trinidad Reyes; the versatile writer, José Cecilio del Valle; the orator, Ramón Rosa; and the renowned poet, Juan Ramón Molina, whose works have been compiled in the volume called "Lands, Seas, and Heavens" ("Tierras, Mares y Cielos"), lives up to its traditions in the world of letters by valuable contemporary contributions to Central American literature.

Among Honduran literati Dr. Alberto Membreño holds a commanding position. In the Americas he will be remembered for his political and diplomatic services, having been influential in conserving the frontiers of his country along their present lines. His scholarly works, including "Práctica Forense," "Aztequismos de Honduras," "Nombres Geográficos del Salvador," and "Hondureñismos," as well as his presentation of the Honduran claims before Alfonso XIII, King of Spain, relative to the boundary controversy with Nicaragua, are valuable contributions to the national literature. He is a corresponding member of the Spanish Royal Academy and a member of various atheneums, scientific bodies, and literary organizations of the continent.

¹ English version of the article by Señor Don Francisco José Albir, published in the Spanish edition of the BULLETIN.

Don Luis Andrés Zúñiga, author of "Fables" ("Fábulas"), is a delightful writer whose signature appears frequently in daily newspapers. His poems have won laurels for him in salons abroad as well as in the Flower Festivals (Juegos Florales) of Tegucigalpa. In addition to his poetic talent he possesses the advantage of study and travel.

Don Froylán Turcios, editor of *El Nuevo Tiempo* and *El Esfinge*, an art review popular in the most representative libraries, is the talented author of a group of books of verse and prose, including "El Vampiro," a novel, the scene of which is laid in the former capital of Guatemala: "The White Phantom" (*El Fantasma Blanco*); "Autumn Leaves" ("Hojas de Otoño"); "New Prose" ("Nuevas Prosas"); "Renglones;" "Butterflies" ("Mariposas"); and "The Motherland" ("Tierra Maternal"); a collection of sketches of national characters intensely interesting for the purely local color they contain. Besides being a literateur and writer, Señor Turcios is seriously engaged in an effort to diffuse interest in standard literature among the general public, as may be seen from a glance through *La Revista Nueva*, which he so ably edits.

Don Paulino Valladares, editor of *El Cronista*, an afternoon paper of considerable circulation in the Republic, is influential in molding the ideals of the younger generation and in reflecting the opinions of those citizens who are anxious to place Honduras in a leading position among nations. He is fearless in controversy and talented in administration; his style is pleasingly original and reflects his great culture. He was identified with the movement looking toward the union of the Central American Republics in the campaign led by President Bertrand, defending the ideal of Morazón in a series of editorials, later compiled in a volume called "Unionist Movement of 1917" ("Movimiento Unionista de 1917"). Señor Valladares also bears the reputation of being an authoritative literary critic, and it is suggested that his criticisms be collected and published in one volume, which would be a useful reference work.

In referring to the young men who are laboring to make Honduras an influential national entity, Don Alfonso Guillén Zelaya, author of "The Water of the Fountain" ("El Agua de la Fuente") should certainly be cited among others. In the book mentioned he portrays the restless soul of the poet with remarkable fidelity. He has been active in political circles, having served as consul and recently being made secretary of the Honduran delegation to the Peace Conference in Paris. Don Rafael Heliodoro Valle has written three successful books, "El Rosal del Ermitaño," "Como la Luz del Día," and "El Perfume de la Tierra Natal," and is at present secretary of the Honduran special mission to Washington, having been assistant secretary of Public Instruction and professor in the Normal School

and National Institute of Tegucigalpa. He is now collecting data for his projected history of Honduras. Don Céleo Dávila is a vivid writer on political subjects and brilliant, like Valladares, in editorials; he has written also bibliographic commentaries and sonnets, in all of which he reveals very promising talent. Don Ángel Zúñiga Huerte is another chronicler and jurist whose work has received much favorable comment. Don Salatiel Rosales, at present residing in Mexico City, is a popular contributor to dailies and magazines both in Honduras and in other countries, excelling in the humor balance, and colorfulness of his style. In San Pedro Sula, two professors, J. Leopoldo Aguicos and Vicente Cáceres, have attained distinction in didactic writing, and, together with the engineer, Don Rubén Bermúdez, contributed materially to the enthusiasm and success of the organization "La Juventud." Don Joaquín Soto, editor of the "Diario del Salvador," is engaged in writing chronicles which are proving of great interest, and has produced also "El Resplandor de la Aurora."

Among the scholars who have interested themselves in the history of the country, the lawyer, Don Rómulo E. Durón, figures prominently, with the following works to his credit: "Honduras Literaria" (two volumes), "La Provincia de Tegucigalpa bajo el Gobierno de Mallol," "Hojas Literarias," "Gobernantes de Honduras," "Obras de Don José Cecilio del Valle" (official publication), "Efemérides de Honduras," and "Pastorelas del Padre Reyes." Dr. Eduardo Martínez López has published "Biografía del General Morazán," "Geografía de Honduras," "Historia de Centro-América" and "Historia de Honduras." Dr. Esteban Guardiola founded the Revista del Archivo y Biblioteca Nacionales, which he edited for sometime after its organization. Dr. Juan María Cuéllar also edited the translation Don Leon Alvarado made of Ephraim George Squier's History of Honduras, revising the work and adding important data. Don Inés Navarro compiled the interesting "Datos Históricos y Geográficos sobre el Municipio de Comayagüela," and Prof. Ulizes Meza recently published a "Geografía de Honduras" which has been officially adopted as the text for schools and colleges. Richard E. Rose, author of a valuable booklet concerning Útila, Rosendo López, and Tobías M. Rosa, are also careful students of the history of the country.

Dr. Luis Landa, the secretary of public instruction and professor of physical and natural sciences, is preparing a work dealing with the flora of Honduras, being the author of "El Derrotero," "Temas Geográficas de Enseñanza Primaria," and "Dibujo Escolar." His collaborator in official duties, Prof. Eusebio Fialles V., writes upon didactic subjects, investigations in the field of natural science, and translations of works on Saxon pedagogy. Prof. Juan J. Castro,

Carlos Aguilar P., and Miguel Morazán have prepared first readers, which bear well-defined tendencies toward nationalism; while Don Pedro Rivas, another professor, recently published in "Lecturas Militares," a work which is now used as an official text.

The lawyers have shared in bringing Honduras into a prominent place in literary circles. Dr. Presentación Quezada, with his "Guía Alfabética del Contenido del Código Civil Vigente" (Alphabetical Guide to the Contents of the Civil Code in force); Dr. Rafael Alvarado Manzano, of the faculty of the College of Law, the author of papers on the code; Dr. Mariano Vásquez, ex-minister of foreign relations and a sane critic; and Dr. Alberto Ucles, popular public speaker on Central American topics and member of various commissions charged with modifying the codes, have lent especial prestige to Honduran letters.

Three other writers should be added to the list—Don Augusto C. Coello, Don Miguel A. Navarro, and Don Matías Oviedo. Coello is refined, cultured, and attains the heights of modern poetry in many passages; Navarro's brilliant editorials in *El Nuevo Tiempo* make him a favorite; and Oviedo, according to one critic, "sets forth exposition clearly, in a form much worthier than is to be found in the average newspaper, and filled with high thinking." But among writers on political themes undoubtedly Dr. Policarpo Bonilla, whose works have been compiled in three volumes, thanks to Lic. Durón, is the master genius. Senor Bonilla has been at various times President of the Republic, a deputy in the national congress, and diplomatic representative to the Governments of Mexico and the United States, and at present is acting as delegate to the Peace Conference in Paris.

In conclusion, it might be interesting to note the names of the leading newspapers of the country. *El Nuevo Tiempo*, *El Cronista*, *Tegucigalpa*, and *El Progreso* are published in the capital; *Revista Juticalpa* in the Department of Olancha; *Renacimiento* in Amapala under the direction of Don Mario Ribas; *Atlántida* and *Centro-América* in La Ceiba, the principal port of Honduras; *El Herald*, *Actualidades*, *El Comercio*, and *El Demócrata* in San Pedro Sula, edited by Leopoldo Aguilar, José Cruz Sologasta, Juan A. Sotto Mayor, and Abel López Osorio, respectively; *El Esfuerzo* and *Revista Militar*, monthly publications of Tegucigalpa, the former a pedagogical review and the latter the official organ of the ministry of war; *El Caribe*, edited by Prof. Tomás B. McField in Roatán, and *La Voz del Sur*, a weekly periodical edited by the poet, Adán Coello.

New names are appearing under articles that indicate promising futures for such young men as Don Lisandro Alvarado, the critic; Don Guillermo Bustillo Reina, the writer of pleasing sonnets; Don Manuel Escoto, the enthusiastic modernist; and Don Manuel Ramírez, writer of "Cartones de Invierno."

THE SIGNIFICANCE OF THE CONFERENCE

THE above is the title of an article by Francis B. Purdie, of R. G. Dun & Co., in the July number of *The World's Markets*, in which he presents a general review of the work of the Second Pan American Commercial Conference, held under the auspices of the Pan American Union at Washington June 2-6, inclusive. He contrasts this conference with the first, held in 1911, and emphasizes the most significant features of this recent remarkable gathering. Being the unbiased opinion of such a well-known expert in international trade as Mr. Purdie, the *BULLETIN* herewith reproduces the article practically in full.

In the matter of delegates, the difference between the First Pan American Commercial Conference, held in February, 1911, and this one, eight years later, was particularly striking. At the first conference the great body of delegates—I should say at least 80 per cent—were representatives of American business concerns who had come to Washington to listen to a few so-called experts, tell them how to capture the trade of Latin America. At this second conference I think I should be safe in saying that less than 10 per cent of the delegate body were without experience in Latin American trading. The leading question at the first conference was, "Tell us how we may trade with Latin America"; at this second conference it was an exchange of experiences with the new question, "What shall we do to hold the trade we have and to increase it?"

In the years between the two conferences a new commercial literature has been born. A whole library of books on "Latin American Trading" has come from the publishers' hands, and the journals, monthly and weekly, that are now in circulation dealing with this branch of our foreign trade, are almost as numerous as the popular magazines. It would seem that at last has come the understanding of the great importance of the future of the United States which lies in building up trade with our southern neighbors.

If I appear to dwell on contrasts between this conference and others which have preceded it, it is because the contrasts were so markedly obvious as to make it impossible to overlook them. Take, for example, the program of speakers. Where before in the United States, or for that matter in any country, has there been a congress, convention, or conference assembled for the discussion of trade expansion,

where the greatest representation upon the platform was from the countries of the prospective buyers? When we consider that the trade with Latin America is a trade that we are most anxious to build up; that it is a trade that we can secure only by meeting and overcoming the stiffest sort of competition; and, moreover, when we consider that the ties not only of blood but those that have grown through long years of business association bind most of the Latin American countries to Europe, I think it will be admitted that the governments of the 20 Republics of Latin America gave splendid proof of their willingness to be more closely in touch with the United States when they sent their best representative men, diplomats, financiers, and commercial experts to the Pan American Conference to explain conditions in their respective countries and help remove obstacles in the way of closer commercial union.

This was the outstanding feature of the conference—that is, with the exception of perhaps not more than half a dozen addresses by high officials of Government—every speaker was detained on the platform while an invitation was extended by the chairman to the delegates to ask any question pertinent to the subject dealt with by the speaker. This privilege was freely taken advantage of by the delegates, and in this way the conference accomplished its full purpose, for it gave opportunity for everyone who desired to have any situation made clear to have it clarified by the person most competent to do so.

During the five days of the conference there were thirteen sessions held. Four of these sessions were exclusively devoted to the twenty Republics of Latin America, the discussions being led off by representative men from each Republic. These sessions were probably the most interesting of all because unique. For the first time, I believe, we listened to the story of commercial achievement in each of these Republics, not from the lips of our own observers, but from the lips of the people themselves with whom we are seeking to trade. We were told what they wanted from us and what we should do to supply their wants, and we were also told what they had to give us in return. All the books that have been written in the past decade have not given so much practical information as was given at those four sessions.

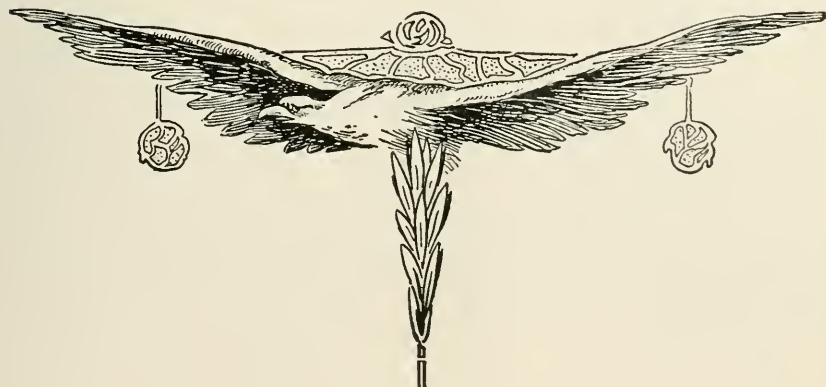
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The discussion of the various subjects was led off by acknowledged international experts, men who have achieved distinction in each line, not only in the United States, but in the other Republics, and the question-and-answer plan brought out, in many instances, phases of each subject from which the delegates profited to an extent which will not soon be forgotten.

As a whole, I believe the Second Pan-American Commercial Conference can safely be declared to have been a decided success, and proved that periodical conferences of this character can not but be of great practical benefit, not only because they help us to a better understanding of the requirements of foreign trade, but because in bringing people together who have a common end in view, they help to remove prejudices, to cement friendships and to create a feeling of international solidarity without which it is impossible to secure desired results.

In view of what I have last said, the addresses made in behalf of the United States by the Hon. William C. Redfield, Secretary of Commerce; by Mr. Edward N. Hurley, chairman of the United States Shipping Board; and by Mr. Charles M. Schwab, president of the Bethlehem Steel Co.: must have been intensely gratifying, particularly to the South American delegates. Those addresses were not only sincerely friendly, but they set forth the steps already taken by this Government to build up reciprocal trade relations between the continents. Fast steamers to cut down the time between the ports of the United States and South America, both passenger and freight; other steamers to take care of the intermediate ports, and to provide a continuous and regular freight and passenger service, not solely for the benefit of international traffic, but to insure regular communication with the ports in each country both on the Atlantic and Pacific; frequent and fast mails, certainty of freight deliveries within a specified time; ability to restock at shorter periods; these were some of the definite promises made.

Director General John Barrett, and the subcommittee of the Governing Board of the Pan-American Union, who completed the arrangements for the Conference, are to be congratulated upon the splendid results achieved. Instead of having the main session devoted to a series of formal addresses, where the delegates were obliged to be listeners only, every session was a working session.



AGRICULTURE, INDUSTRY AND COMMERCE

ARGENTINA.

EXPORTS OF ARGENTINE MEATS increased considerably during the first quarter of the present year. From January to April, 1919, these exports were 506,339 quarters of frozen beef and 426,213 frozen wethers more than during the same period of 1918. The meat exports in April, 1919, are greatly in excess of those of the same month of the previous year. The exports from January to April, 1918, consisted of 1,930,280 quarters of frozen beef and 21,256 quarters of chilled beef, while during the same period of 1919 the meat exports consisted of 824,425 quarters of frozen wethers and 2,436,619 quarters of frozen beef.

The PRODUCTION OF MILK and its by-products in 1918 was valued at not less than 200,000,000 pesos, national currency. This shows an enormous increase in the dairy industry of the country. In 1913 Argentina imported 5,000,000 kilos of cheese. These imports have now practically ceased, and the home production has been large enough to not only supply the domestic demand but to also furnish a considerable quantity for export. In 1913 the exports of butter were 3,800,000 kilos; of cheese, 7,300 kilos, and of casein, 3,400,000 kilos, with values aggregating 6,700,000 pesos, currency. In 1918 these exports were as follows: Butter, 18,970,000 kilos, valued at 36,340,000 pesos, currency; cheese, 6,431,000 kilos, valued at 5,222,000 pesos, currency; and 3,564 kilos of casein, valued at 1,506,000 pesos, currency, or an aggregate value of the three products of 43,068,000 pesos, currency. The milk used in the manufacture of butter and cheese represents 700,000,000 liters, which is the normal production of 700,000 milch cows. In 1913, according to the third census, Argentina had 2,200,000 cows. Estimating the domestic milk consumption in 1918 as equal to or greater than that of 1913, it is logical to suppose that there has been a considerable increase in the number of cows, and that the probable number in the Republic is now about 3,000,000. Inasmuch as incomplete data from Europe indicates a loss there during the war of more than 10,000,000 cows, it would seem that the demand for Argentine dairy products is assured for many years, and all indications point to a rapid development in future of the Argentine dairy industry.

The Agricultural Museum of the Argentine Rural Society has begun an active propaganda for the development of COTTON CULTIVATION in the Republic, with the object of producing large quantities of this fiber, to meet the growing demands for same by manufacturers of cotton fabrics. Cotton is being successfully grown in that part of Argentina known as the "Chaco," and the fiber is of good quality.

The Secretary of Public Works has begun negotiations with United States and English firms for the purchase of 100 LOCOMOTIVES for the State railways. A United States firm has offered to deliver these engines within a period of from four to six months.

The CENTENARY MARBLE QUARRIES, situated in the Province of Cordoba and covering an area of 600 hectares, are now in full operation. Large blocks of pure white, greenish, rose, and other colored marbles are being extracted. The quarry is considered to be practically inexhaustible.

BOLIVIA.

THE IMPORTATION OF POWDER AND EXPLOSIVES into Bolivia for the past six years from 1912 to 1918, inclusive, amounted to 7,028,065 kilos valued at 7,028,065 bolivianos.

According to the Customs Review of Bolivia, the EXPORTATION OF TIN for the first three months of the present year reached a total of 10,657,114 kilos, valued at 20,874,441 bolivianos, the export duty paid amounting to 1,200,638 bolivianos.

The Department of Commerce and Industry has approved the plans presented by the contractor for the MACHACAMARCA-UNCÍA RAILROAD relative to the changes in the drawings of the final section of the line between Paso de Bomba, or Kilómetro 60, and Uncía.

Newspaper notices from Sucre state that in the vicinity of Tarabuco RICH DEPOSITS OF CORUNDUM AND OTHER PRECIOUS STONES have recently been discovered. Many requests for permits to exploit the minerals have already been presented to the Prefecture of the Department. Corundum in its crystalline state is the second hardest substance to the diamond.

The Department of Internal Revenue has just published a map of the MINING CONCESSIONS OF 1916 AND 1917 which lapsed during the second half of 1918 and the first of the present year. The map shows the name, jurisdiction, and extent of the claims.

In the first part of July the second section of the Machacamarcá-Uncía railroad, between kilometers 40 and 60, was opened for traffic.

The last of May an AUTOMOBILE SERVICE LINE was put in operation between the cities of Sucre and Cochabamba, and also between Sucre and Potosí.

The subdirector of the Province of Iténez in giving information about the province says that the CULTIVATION OF GRAPES is well developed, growers producing two crops a year and making a superior wine. There are already several plantations that have taken up the new industry. A plantation near Rio Blanco has also begun the manufacture of PALM OIL SOAP from what is commonly known as the "Cusi Palm" (*orbignia phalerata*). The soap is as white and of as fine a quality as that made from cocoa oil, and has the advantage of being a tonic for the skin.

BRAZIL.

According to a report of the Bureau of Commercial Statistics of the Department of Finance of Brazil the FOREIGN COMMERCE of that country in 1918 amounted to \$557,144,277, of which \$259,224,006 were imports, and \$297,920,271 were exports. In 1917 the imports were \$215,298,653, and the exports \$306,388,943, or a total of \$521,687,596. A comparison of the two years shows an excess in favor of 1918 of \$35,456,681.

According to a report of the consul general of the Argentine Government in Rio de Janeiro the PRODUCTION OF MAIZE in Brazil places that Republic among those of the great maize producing countries of the world. This report shows that Brazil exported during the year prior to the European war only 2,400 kilos of maize. In 1915 there were no exports of this cereal from Brazil, but in 1917 the exports of this grain amounted to 24,048 tons, and rose in 1918 to 5,000,000 tons. During the latter year the area in Brazil under maize cultivation was 3,058,043 hectares. The States having the largest area under cultivation were Minas Geraes, Rio Grande do Sul, São Paulo and Paraná. The average yield per hectare was 40 hectoliters (one hectoliter = 2 bushels 3.35 pecks), and the approximate value of the crop was 518,000 contos (paper conto = \$275.00).

In 1918 the EXPORTS OF TOBACCO from Brazil amounted to 2,263,000 pounds, as compared with 1,296,000 pounds in 1917, and 1,551,000 pounds in 1916. The State of Bahia is the largest producer of tobacco in Brazil, and the Argentine Republic the largest foreign purchaser of Brazilian tobacco.

According to Dr. Paulo de Frontin, a professor in the Polytechnic Institute in Rio de Janeiro, Brazil has not less than 51 great WATERFALLS capable of producing more than 50,000,000 horsepower. Of these waterfalls 12 are in the Amazon Basin, 6 in the basin of the San Francisco River, 19 on the headwaters of the Jaquintinhonha River between Sierra de Mar and Santa Catharina, and 14 are in the basin of the River Plate. Among these falls the Maribondo may be mentioned with 580,000 horsepower; the Patos with 120,000 horsepower; the Urubupungá with 447,000 horsepower; the Onza with 220,000

horsepower; the Agua Vermelha with 300,000 horsepower; the seven falls of Guayra with 20,000,000 horsepower, and the Iguasú or Santa Maria Falls with 14,000,000 horsepower. The Guayra and Iguasú Falls are in the State of Paraná.

An executive decree of May 21 last approves the plans for the IMPROVEMENT OF THE PORT OF RIO DE JANEIRO, and arranges for the expropriation, in the manner prescribed by existing laws, of the lands necessary for carrying out these improvements.

CHILE.

The PRODUCTION OF NITRATE in Chile in 1918 amounted to 62,000,000 quintals, while the exports of this commodity during that year aggregated 64,000,000 quintals. On April 30 last the stock of nitrate on hand on the Chilean coast was 28,000,000 quintals. During the first quarter of 1919 the exports of this product were 3,691,564 quintals, or 14,653,348 quintals less than those of the same period of 1918. There is reason to believe that during the second quarter of the present year the exports of nitrate will tend to become normal, and that the great accumulated stock of this product on hand will be absorbed by the agricultural industry of the European countries.

According to press reports from Santiago the Chilean Minister in Rome has contracted with the Italian Transatlantic Co. of Genoa to establish an ITALIAN-CHILEAN STEAMSHIP LINE. The company proposes to use three vessels of 12,000 English tons each in the traffic between Genoa and Valparaiso, routing same via the Panama Canal, with stops at Mediterranean, Atlantic, and Pacific ports. In case of necessity vessels may be routed through the Strait of Magellan. A number of freight and passenger steamers of from 12,000 to 14,000 tons each will soon be completed and ready for use in this traffic. At the beginning of the service sailings will be made every 40 days, but sailings will become more frequent with the addition of other vessels. On the return trip nitrate and other Chilean products will be transported, as well as Chilean mail, including postal parcels, and free passage will be granted to certain Chilean officials.

Three large IRRIGATION CANALS are now under construction in Chile, namely, at Maule, Laja, and Melado, at an approximate cost, respectively, of 8,400,000 pesos, 1,978,000 and 4,890,000 pesos. These canals will irrigate lands to the extent of 116,608 hectares.

The *Santa Lucia*, a vessel of the United States & Pacific Line, has broken the record for fast sailing to Chile, inasmuch as on May 24 last at 4 p. m. it left Valparaiso for New York, arriving at the latter place on June 10 at 8 a. m.; that is to say, making the voyage in 16 days and 16 hours, or at a speed rate hitherto unknown in this class of navigation.

On June 9 last the President of the Republic witnessed experiments by Dr. Eduardo Charme, Senator from Colchagua, verifying his discovery in CHEAPENING THE PRODUCTION OF NITRATE. The process consists of a chemical reagent which precipitates the nitrate without the use of heat, a discovery which it is said will not only revolutionize the production of Chilean nitrate but will also reduce its cost by more than 50 per cent, and, at the same time, will render unprofitable the manufacture of artificial nitrate. According to information furnished by Dr. Charme the cost of producing a quintal of practically pure nitrate by means of his reagent will be reduced to such an extent as to make it even lower than any of the component parts of synthetic nitrate. He estimates that with the new process the production of 100 kilos of nitrate will cost 65 centavos, Chilean currency (about 13 cents U. S.), not including the cost of the extraction of the caliche or raw product and other expenses incurred up to the time of shipment. The cost of manufacture by the new process will be 80 per cent lower than that by the old method, and bearing in mind other expenses which can not be eliminate, the net reduction in cost will be in excess of 50 per cent. Dr. Charme showed by experiments made in the presence of the Executive and of a number of experts that the purity of the nitrate obtained by his method was greater than 99 per cent, or the highest grade secured up to the present time in the manufacture of nitrate, since the richness of nitrate made by the old methods is seldom more than 65 per cent.

Early in June last a rich COAL DEPOSIT was discovered on property belonging to Maximiliano Arran, situated about 10 kilometers from the station of the Bolivian Central Railway. Coal is now being extracted from this deposit.

The National ELECTRIC Power Co. has just been organized in Chile with a capital of £1,000,000 for the purpose of acquiring water concessions sufficient to develop a force of 90,000 horsepower. It is proposed to convey this power to Rancagua, Calesa, and Valparaiso for industrial uses. The company plans to erect four hydroelectric plants, but for the present will confine its activities to the one located at Maitenes, where there is a waterfall of 183 meters, capable of producing a force of 30,000 horsepower.

COLOMBIA.

A stock company with capital of \$1,000,000 subscribed by the principal business men of Barranquilla has been formed to OPEN THE BOCAS DE CENIZAS and convert the river port of the city into a seaport. Sr. Tomás Curí Salcedo was elected president, and the directors are Sres. José Víctor Dugand, Ernesto Cortissoz, José

Fuenmayor, Manuel Julián Alzamora, Gregorio Obregón and Julio Gerlein.

Gen. Don Enrique Arboleda has obtained a concession from the Government to exploit the DEPOSITS OF GUANO found on the islands known as "Los Monjes" belonging to the peninsula of La Goajira. Gen. Arboleda has the right to 15 per cent of the crude product.

According to reports of the press, the company which was formed a short time ago to develop the EMERALD MINES OF CHIRVANEQUE has been financed by a reputable American firm to the extent of \$500,000.

The firm Hija de Joaquin Pujóíl, of Barcelona, Spain, has recently established a LINE OF SPANISH SAILING VESSELS between that port and Puerto Colombia, chiefly to carry Colombian fruits and cotton.

A CHILIAN COMMERCIAL COMMISSION recently arrived at Buenaventura on its way to Cali and cities in the interior of the Republic. Its mission is to study Colombian markets of the Pacific and interior, and to establish trade between the two countries. The commission has brought a variety of samples of Chilean products which should be of interest to Colombian commerce.

On the 22d of May the governor of Tolima signed a contract with the firm of Pedro Lopez & Co. for the CONSTRUCTION OF A RAILROAD FROM AMBALEMA TO IBAGUE by way of Venadillo and Caldas. This railroad will connect with the railroad of La Dorada at Ambalema, and with the one at Tolima, which is a part of the Pacific railroad in the district of Ibagué.

The chamber of commerce of Cali received a note from the Food Administration of the United States to the effect that a commission of American business men would soon arrive at Buenaventura on their way to Cali. They are bringing samples of all kinds of farming implements and machinery, and desire to establish trade between the two countries, hoping the Colombians may profit by their visit. The Minister of Commerce and Agriculture will extend them the courtesies of the customs for their samples and free railroad transportation to Cali, where they will be received as distinguished visitors.

The National Government has granted the petition of the state governments of Atlantico and Bolivar, and has divided equally between them Colombian bonds to the value of \$200,000, for the construction of a HIGHWAY CONNECTING BARRANQUILLA WITH CARTAGENA.

The National Government has RAISED THE DUTY ON SALT imported through the customs on the Pacific coast.

The Ministers of Public Works and of Agriculture and Commerce were commissioned by the President to inspect the lands adjacent

to the LAKE OF FUQUENE, and to estimate the cost of drainage of the area for agricultural and stock-raising purposes. The yield and profit should be remarkable, as the soil of this region is exceptionally fertile. The lands are located not far from the proposed railways that will open up the northern part of the country.

The representative of the mining company Gold Coast States Ltd., after his recent visit to Putamayo, informed the press that he had found RICH OIL FIELDS, soft coal mines, and indications of copper near Alvernia, Guabes and Aguarico. He further stated that the lands of those districts are extremely fertile and suitable for all kinds of cultivation, particularly for tobacco and fine varieties of cacao; that the large valleys of the rivers offer opportunity to raise sufficient cotton to supply foreign markets; and that along the banks of the Aguarico and Napo they are already growing it on a small scale and quoting good prices in the Quito market.

An electrical engineer of the Westinghouse Co. of the United States has estimated the cost of electrification of the RAILROAD OF AN-TIOQUIA at \$400,000 gold. This estimate includes the electrical plant and necessary equipment.

CUBA.

On the 20th of June the English boat *Hornby Castle* arrived at the port of Habana from Antwerp with a load of Belgian goods, the first to leave Belgian ports for Cuba since the European war. The arrival of this vessel marks the resumption of the SERVICE OF ENGLISH FREIGHT STEAMERS that existed before the war between Antwerp and Habana.

A COOPERATIVE SOCIETY OF PHARMACISTS, under the name of The Druggists Company of Cuba, has just been formed. It will engage in the importation and sale of drugs on a large scale.

The Department of Agriculture has accepted the gift of several tracts of land from the townships of Ciego de Avila and Bayamo, in the Provinces of Camaguey and Oriente, for the purpose of establishing BREEDING STATIONS FOR HORSES, MULES, CATTLE, AND HOGS. Bids are being called for to construct model stables for the horses, mules, and cattle; pens for hogs of varied breeds; poultry yards; and houses for the employees.

Owing to the large number of cattle Cuba has been importing from Venezuela, Colombia, and other Central and South American points through the port of Manzanillo, the President has ordered the establishment of QUARANTINE STATIONS and the installation of cattle dips for imported cattle as a protection to the native stock. The stations will be installed for the present in the Barrio del Luyanoin of Habana and in the port of Manzanillo.

According to a business directory published by the Commercial Herald, of Habana, there are at present in the Republic 174 SUGAR FACTORIES, divided among the Provinces as follows: Sixty-four in Santa Clara, 45 in Oriente, 37 in Matanzas, 19 in Habana Province, and 9 in Pinar del Rio. Of the 174 factories 72 are Cuban, 56 American, 36 Spanish, 4 English, 3 French, 2 Swiss, and 1 Italian.

Reckoning from the number of stamps sold in the fiscal zones, the TOBACCO MANUFACTURED IN CUBA IN 1918 amounted to the value of \$33,829,627, the production consisting of 331,705,125 cigars, 341,803,660 boxes of cigarettes, and 378,426 pounds of cut tobacco.

Under the caption "A NEW NATIONAL INDUSTRY" the Mercury, of Habana, publishes an article giving an account of the manufacture of commercial automobiles with a capacity of 4 to 40 persons, and 1 to 10 ton trucks, by the firm of Castulo Estévez & Co. This firm has invented and patented under the Cuban Government some improvements in use on their cars.

The Chamber of Representatives has approved the building of an ELECTRIC RAILROAD from Sancti Spiritus through Guayos, Neiva, Cabaiguan, and Santa Lucia. The concession has been granted to the Electric Light & Traction Co., of Sancti Spiritus.

In Matanzas a company has been organized to start the MANUFACTURE OF RAILROAD CARS to supply the needed rolling stock to Cuban railroads. The machinery for the factory will be of the most modern type, and imported from the United States. The site chosen for the factory is on the San Juan River near Pueblo Nuevo, and not far from the Sanchez Figueras bridge.

In a meeting of American bankers, merchants, and business men called by the United States minister to Cuba in the middle of July at Habana, it was resolved to form a CHAMBER OF COMMERCE in that city to encourage trade between Cuba and the United States. Mr. Frank Steinhart was elected president.

DOMINICAN REPUBLIC.

At the beginning of June last, a meeting of workmen was held in the city of Santo Domingo for the purpose of exchanging views concerning the holding in the national capital at an early date of a NATIONAL INDUSTRIAL EXPOSITION OF MANUAL ARTS with the object of showing the industrial development of the Republic. A committee composed of Gustavo Concha, Tadeo Martinez, Aristides Rojas, and Armando Castro was appointed to organize and take charge of the exposition.

On June 5 last, grinding at the Romana Sugar Central was completed, the output amounting to 140,000 sacks of SUGAR of 320 pounds each. This production would have aggregated 230,000 sacks had it been possible to grind in the central all of the cane grown. It was necessary, however, to send 117,000 tons of cane to Porto Rico to be ground there. The Ansonia and Ocoa sugar plantations have also finished their grinding season with a production of 19,000 and 18,000 sacks, respectively. These figures show the great development of the sugar cane industry in the country.

Construction work has been commenced on the important HIGHWAY from Sabana de la Mar to Hato Mayor. This road will connect with one which is being built from the last-named place into the district of Cibao, thereby putting that region in direct communication with the rest of the Republic.

With the object of experimenting with the cultivation of WHEAT an agricultural substation was established in Constanza in September of last year on land above 4,000 feet above the level of the sea. The first sowing was in February, 1919, and monthly since that date. As yet it is not definitely known whether these sowings will prove profitable, notwithstanding the fact that the February sowing is very promising. At the end of July last, the wheat was more than a foot high, thus indicating that this cereal can be successfully grown in that part of the Republic.

ECUADOR

According to the Bulletin of the Chamber of Commerce of Guayaquil the EXPORTATIONS OF CACAO through this port for May amounted to a total of 40,424 sacks, weighing 3,301,822 kilos, of which 1,877,950 kilos were sent to France, 751,784 to Great Britain, and 672,088 to the United States. Adding this amount to the amount exported from the 1st of September, 1918, to the 30th of April of the present year, the result shows that in 8 months there have been dispatched for foreign markets from the port of Guayaquil alone 38,389,286 kilos, of which 21,878,387 were handled by the Agriculturalists Association and 16,510,899 by individual exporters.

During the month of May 10,529 COW HIDES were exported through the port of Guayaquil, showing a great increase over the previous month, when only 7,122 hides were exported.

The President of the Republic, through the Department of Agriculture, has offered a gold medal as a PRIZE FOR THE BEST COW of mixed Holstein-Frisian breed exhibited at the agricultural exhibition to take place at Quito in August.

On the 3d of May the Agriculturalists Association of Guayaquil signed a contract with the Mercantile Bank of the Americas appointing this banking house as its GENERAL AGENT FOR THE SALE

OF CACAO THROUGHOUT THE WORLD. The bank has promised, through its New York office, its branches, and affiliated firms throughout the world, to bring this Equadorean product before buyers and to increase the sale. All the expenses of loading, transportation, storage, brokerage, and the sale of cacao, including maritime insurance, war risk and fire insurance, handling, weighing, etc., will be charged to the account of the association. It will send annually to the bank an unstated quantity of cacao to be sold at the risk of the association, but it will have the right to ship to the most convenient markets. The bank will receive a commission of $1\frac{1}{2}$ per cent on sales effected by the bank or its branches, and 1 per cent commission on sales effected by the association. According to a clause of the contract, the bank will open a current account in favor of the association for \$2,000,000 gold on which it can draw at three days sight for operations in buying cacao.

Under the Presidency of Dr. Luis Felipe Borja the ASSOCIATION OF AGRICULTURALISTS OF THE NORTH OF ECUADOR has just been formed. This, like the other societies of its kind which exist in the country, will work for the development and progress of agriculture in the northern part of the Republic, and will organize a series of conferences to bring up new discoveries, and show scientific methods which contribute to the extension and intensification of agriculture.

According to newspaper notices the President is about to engage the services of an expert on plant diseases to come to the country to study the DISEASE WHICH HAS ATTACKED THE CACAO. The matter will be brought before the Department of Agriculture at Washington by the Department of Foreign Relations.

"El Comercio," of Quito, states that the president of the International Navigation Corporation of the United States has decided to establish a STEAMSHIP SERVICE BETWEEN NEW ORLEANS AND GUYAQUIL via the Panama Canal.

On the 1st of July the Guayaquil-Quito Railroad Co. reestablished THE FORTNIGHTLY PASSENGER TRAIN SERVICE between the two cities.

On the 24th of May the FIRST FREE ANIMAL FAIR took place in the National Hippodrome at Quito, under the auspices of the Department of Agriculture.

GUATEMALA.

The following account of the transfer of the electric light and power plant of Guatemala City to an American company is taken from United States Consul E. M. Lawton's report, published in Commerce Reports for July 10, 1919:

The electric lighting and power plant of Guatemala City (Empresa Eléctrica de Guatemala) was granted a 30-year concession some 25 years ago for electric lighting

and power service in the city of Guatemala. The enterprise has always been a German institution, and more than 90 per cent of the stock was held by the Deutsche Bank of Berlin. By Executive decree No. 742 of October 16, 1918, this property was taken over by the Guatemala Alien Property Custodian and by later decree was declared forfeited to the Guatemala Government and nationalized. By executive order this property has now been leased to Mr. Henry W. Catlin, No. 71 Broadway, New York, for the term of 10 years, at a cash rental of \$40,000 per annum, together with the option of extending the lease for an additional like period. The Government concession under which the old company operated has been extended for the life of the contract and any prorogation. The lessee also becomes the preferred bidder in any future sale of the property.

The plant was erected by the Siemens-Halske (Berlin) Co., and is hydroelectric, with a present capacity of 2,000 kilowatts at 4,000 volts triphase alternating current, which is transmitted from the power station at Palin, 28 miles distant from Guatemala City. This is reduced at the local station to 1,000 volts for primary distribution over the city. The house service is 120 volts. The entire pole line, both transmission line and for city distribution, is made of 9 and 10 inch I beams. Some 16,000 incandescent lamps, 280 open-arc street lamps, and 2,000 horsepower in motors are served.

Before the earthquakes of 1917-18 about 30,000 incandescent lamps were connected.

The leasing company also acquires the right to an incomplected additional water power and central station at San Luis, about 6 miles from Palin, the present operating station, which, when completed, will give an additional 3,000 kilowatts. This additional power will probably be completed promptly by the leasing company, as there is much demand for additional light and power service in this city. It is a common thing to see advertisements of electric motors for sale, "with right of electric service," and at the offices of the company are many applications for power waiting their turn. The plant as it stands to-day has an estimated valuation of \$1,000,000, and the cost of completing the auxiliary station is estimated at \$300,000.

The new CUSTOMS DUTY ON IMPORTED MERCHANDISE, authorized by Executive decree of May 15 last became effective on the 1st day of July.

A Guatemalan agricultural magazine publishes an article suggesting the CULTIVATION OF PINEAPPLES as a profitable venture in Guatemala. The climate, extensive lands, proximity of railway facilities and seaports should make a cooperative society for the cultivation, sale, and exportation of fruit on a large scale a sound investment.

The Director General of the International Railroads of Central America and the Director of the National Railways of Mexico recently held a conference to discuss the following matters: Means of encouraging traffic between Mexico and Central America; transportation of oil for the use of the Guatemalan railways; and the construction of the international bridge over the Suchiate River. It was decided to share all expenses, taxes, fees, and advertisement, and to construct on both banks of the Suchiate STOREHOUSES FOR OIL.

The international bridge will be constructed at the narrowest part of the river, will measure 400 meters, and be completed in

six months at an approximate cost of 500,000 pesos, shared equally by BOTH Governments. Across the bridge will run a three-rail railroad to accommodate wide and narrow gauge, since the Guatemalan roads are of this latter type. There will be a driveway across the bridge for carriages and automobiles. Thus traffic will be facilitated to a great extent; the railways of both countries will extend to the bridge and merchandise be carted across, and passengers in automobiles will no longer undergo the risks nor delays to which they are subject to-day on board the small craft which cross the river.

HAITI.

According to a report from the American consul at Port au Prince COTTON has a riotous growth in all parts of the island; once planted it grows and continues producing for 15 or 20 years; but little attention has been given so far to its cultivation in Haiti, and owing to the difficulty of obtaining laborers when the season for gathering arrives it is often put upon the market in a badly prepared state. The Haitian cotton is considered to be of a fair grade; formerly the greater part of the crop was shipped to Europe, principally to France; since the commencement of the war, however, a considerable quantity has been sold every year in the United States, and the sales are rapidly increasing in that market. Lately there has been a great interest taken in view of increasing the output, and at the present time an important company is being organized for the purpose of encouraging the cultivation on a large scale.

In the last six fiscal years 181 PASSENGER AUTOMOBILES and 18 motor trucks have been imported from the United States. The recent rapid increase in this trade is shown by the following figures: 1916, number of passenger cars imported, 10, total value, \$3,788; 1917, passenger cars imported, 29, total value, \$13,780; 1918, passenger cars imported, 102, total value, \$54,613. The Haitian imports of automobiles, parts, and tires multiplied 100 times from 1912 to 1918.

American imports of HAITIAN PRODUCTS consist chiefly of dyewoods, coffee, cacao, sugar, and hides; they increased from \$800,000, in 1912, to \$4,800,000, in 1918; exports to Haiti from the United States during the same period increased only from \$7,200,000 to \$8,000,000.

HONDURAS.

Under a contract made by the Executive Power with Antonio Rivas, Rafael Alduvín L., Casimiro Serrano Cáliz, Antonio M. Callejas, and Humberto Ferrari G., these gentlemen are given the authority to extract, refine, and export PETROLEUM, COAL.

NAPHTHA, and other hydrocarbons which they discover in the Departments of Colon, Olancho, El Paraíso, and the Mosquitia Territory. Each exploitation zone will have an area of 1,600 hectares, and is to be surveyed by an engineer appointed by the Executive. The concessionaires may bring into the country free of duty such machinery and utensils as may be necessary for use in the work. They also have the right to use Government lands and the timber found thereon to such an extent as may be required for the establishment and development of the business. The sale and export of the products produced are exempt from Government taxes and duties. The concessionaires agree to sink a shaft at least 2,000 meters deep within two years from the approval of the contract by Congress, and to cede to the Government 10 per cent of the gross output of crude petroleum or other hydrocarbons that it may extract. As a guaranty of the fulfillment of the contract the concessionaires must deposit in the National Treasury, within 60 days after the approval of the concession by Congress, \$10,000, American gold, which sum will become the property of the State. The duration of the contract is 25 years, and the concessionaires or their successors, even though they be foreigners, are subject to the jurisdiction of the courts of the Republic. The following causes will work a forfeiture of the contract: Failure to deposit the \$10,000 within the term stated; trading in articles imported free by the company; failure to sink shafts within the time stipulated; transferring their rights and obligations without the approval of the Government; and failure to fulfill any of the obligations stipulated in the contract. The rights acquired may be transferred to any person or company, but in no case to foreign Governments or State corporations.

During the latter part of June, 1919, three American engineers, employed by the HONDURAS PETROLEUM CO. to prospect its petroleum concession in the Departments of Comayagua, Yoro, Atlantida, and Cortes, arrived in San Pedro Sula. Two of these engineers will have charge of the construction of the highway from Siguatepeque to the south bank of the Yojoa Lake. Eighteen kilometers of this road have been opened to public service.

With the object of increasing commerce between the United States and Honduras a STEAMSHIP SERVICE has been established between New Orleans and the eastern section of the northern coast of Honduras.

An arroba of MANGLE BARK, which is now quoted at \$10 a ton of 2,000 pounds, was recently sent to the United States from Bahia Island for analysis. The tree which produces this bark grows in profusion in different parts of the Republic, and if the analysis is favorable the industry can be developed on a large scale.

MEXICO.

The total FOREIGN TRADE of Mexico for the year 1918 amounted to 531,775,487 pesos, of which 164,470,036 pesos were imports and 367,305,451 exports.

In figures of United States currency, estimating the Mexican gold peso at 50 cents the trade of Mexico for 1918 was: Imports, \$82,235,019; exports, \$183,652,725; total, \$265,887,744.

The imports by principal countries of origin for the years 1913 and 1918 were:

Imports.

	1913	1918
United States.....	\$48,643,778	\$70,576,314
United Kingdom.....	12,950,046	4,787,725
France.....	9,168,977	1,635,928
Cuba.....	92,333	1,377,351
Spain.....	5,265,320	994,377
India.....	1,430,519	652,333
Guatemala.....	11,825	510,052
Italy.....	942,080	332,323
Switzerland.....	946,083	233,923
Japan.....	488,684	166,335
China.....	194,969	164,744
Nicaragua.....	9,100	129,603
Honduras.....	611,244	93,665
Argentina.....	8,705	86,935
Peru.....	6,598	69,063
Salvador.....	9,712	58,243
Java.....	60,403	47,917
Ecuador.....	28,951	42,969
Dominican Republic.....	80,253	29,249
Venezuela.....	14,835	26,157
Colombia.....	2,143	25,863
Costa Rica.....	334,746	13,455
Netherlands.....	375,712	6,599
Sweden.....	168,827	2,175
Chile.....	151,722	2,609
Canada.....	254,525	651
Norway.....	12,610,384	292
Germany.....	1,401,718	100
Belgium.....	671,397	73,557
Other countries.....		
Total.....	97,886,169	\$2,235,019

Imports by Classification.

	1913	1918
Animal products.....	\$9,025,709	\$9,990,936
Vegetable products.....	15,784,772	18,992,998
Mineral products.....	23,723,453	14,404,160
Textiles.....	12,943,176	14,326,997
Chemical products.....	6,308,513	5,319,312
Alcoholic beverages.....	3,425,892	618,616
Paper, all kinds.....	2,643,876	1,535,236
Machinery and accessories.....	12,249,341	5,625,905
Vehicles.....	2,553,314	3,299,730
Arms and explosives.....	3,868,784	1,111,098
Miscellaneous.....	5,359,339	7,009,731
Total.....	97,886,169	\$2,235,019

The exports by principal countries of destination in 1913 and 1918 were:

Exports.

	1913	1918
United States.....	\$116,017,854	\$175,037,172
Chile.....	31,491	2,342,058
United Kingdom.....	15,573,551	2,186,313
Cuba.....	863,938	1,514,585
Spain.....	1,091,413	827,705
Argentina.....	7,965	448,806
British Honduras.....	588,685	418,580
Panama.....	-----	364,413
Guatemala.....	413,154	291,783
Brazil.....	12,000	242,390
Japan.....	137	125,696
Honduras.....	3,961	51,944
Peru.....	75	45,850
Nicaragua.....	-----	30,251
Costa Rica.....	518	16,363
Salvador.....	204,931	5,810
France.....	3,575,509	3,006
Germany.....	8,219,009	-----
Belgium.....	2,575,624	-----
Canada.....	743,768	-----
Other countries.....	228,432	-----
Total.....	150,202,808	183,652,725

Exports by Classification.

	1913	1918
Animal products.....	\$9,918,916	\$9,784,850
Vegetable products.....	42,971,477	64,468,662
Mineral products.....	94,824,305	1106,966,171
Manufactured products.....	1,672,633	-----
Miscellaneous.....	815,477	2,433,042
Total.....	150,202,808	183,652,725

¹ Includes petroleum, \$70,250,000.

The first part of July the Association of the Chambers of Commerce of Texas opened an OFFICE FOR MEXICAN TRADE to encourage commercial relations between the two countries.

Representatives of various Chilean enterprises have arranged with some Mexican oil companies to BUY SEVERAL MILLION BARRELS OF OIL, which are to be shipped from Puerto Mexico to Salina Cruz by the railroad of Tehuantepec and from the latter port to Valparaiso to lessen the distance and reduce the freight.

The 9th of July the President appointed Col. Paulino Fontes DIRECTOR OF THE NATIONAL RAILROADS. On the same date the designation "Railroads of the South East of Mexico" was declared to be no longer in force, and the railroads formerly under that heading: Interoceanico, Mexicano del Sur, Veracruz al Istmo y Panamericano, were incorporated in the National Railroads. The Ferrocarril Mexicano, the Veracruz-Alvarado line, and the National Railroad of Tehuantepec have independent administration.

The South American Pacific Line, of Canada, has decided to establish A DIRECT LINE OF STEAMERS between Canada and Mexico.

The Department of Communications and Public Works has signed a contract with the Compañía Maderca of Zitácuaro for the CONSTRUCTION OF A RAILROAD FROM TULUCA TO ZITÁCUARO. This railroad opens up undeveloped lands in the States of Mexico and Michoacan. It will be 130 kilometers (81 miles) long, and be completed in 10 years.

According to reports published by the Office of Agricultural Statistics of the Department of Industry ON THE CROPS OF 1918 the yield for the entire Republic was as follows: Corn, 191,191,080 kilos; alfalfa, 37,363,270; peanuts, 344,785; beans, 7,101,098; potatoes, 4,030,750; sweet potatoes, 24,506,000. The area planted was 260,314 hectares, of which 238,696 were sown with corn, 9,717 alfalfa, 730 peanuts, 2,499 in beans, and 8,672 in sweet potatoes.

The middle of May a cargo of JAPANESE SUGAR arrived at the port of Salina Cruz destined for markets of the principal cities of the Republic. This is a trial shipment, as the Japanese are anxious to gain the Mexican market.

The Mexican press announces the ARRIVAL OF REPRESENTATIVES OF 80,000 PORTUGUESE COLONISTS in Mexico City who wish to found a colony in Mexico for the development of vineyards and the production of wines. The Government has decided to give every facility to the colonists, and their representatives are now arranging for their immigration into Mexico.

In order to adequately proportion the WATER SUPPLY, the Department of Agriculture and Interior has divided the country into five zones, determining the boundaries of each one.

The wonderful development of the OIL INDUSTRY IN MEXICO is indicated by the construction in the last few months of nine new pipe lines, raising the extent of those already in operation to 1,171 kilometers and adding an approximate value to these lines of 50,000,000 pesos, according to official figures. Up to the present time the Huasteca Co. has the most extensive pipe line, 361 kilometers; next El Aguila, 343; the Mexican Gulf, 100; and the Oil Field Mex., 89. The diameter of the pipe is 20 centimeters and its capacity of transmission 20,000 barrels daily. The rich potentialities in oil are increasing daily; they are not confined to one place, but cover different parts of the Republic. For instance, the Department of Commerce and Industry has just given out the information that in the suburbs of Ciudad Juarez, 15 miles from the border, are oil fields that appear to give promise of being as great or greater than those of Vera Cruz on the east coast. If these recently discovered fields

produce as much oil as those on the coast, Ciudad Juarez will acquire as great importance as Tampico and Panuco.

In order to encourage **TRADE WITH CENTRAL AMERICAN COUNTRIES** and make every effort to gain markets for Mexican goods in the five countries of that part of the continent, the President has appointed Sr. José Angel Lagarda commercial agent to Central America. Sr. Lagarda before leaving for his post made a trip throughout the Republic, studying trade conditions and procuring samples for exhibit.

The Department of Agriculture will initiate the use of **MOVING PICTURES TO TEACH THE ART OF FARMING** to the country people as the most efficient, economical, and rapid method of instruction. The plan adopted will show the farmers using modern farming implements, the use of fertilizers and how to apply them, the system of "dry farming" like that used in the United States, and the construction of dykes for irrigation. The exhibitions will be accompanied by explanatory lectures and should produce excellent results.

NICARAGUA.

The Nicaraguan Fruit & Steamship Co. (Inc.), which has been doing business in the Republic since 1916, proposes to undertake on the Atlantic coast the **CULTIVATION OF BANANAS** on a large scale, and with this object in view has taken the necessary steps for the establishment of a freight and passenger steamship service between New Orleans and the Atlantic coast of Nicaragua.

Two citizens of Palmira have decided to establish in that place a model **TANNERY AND SADDLERY** for the tanning of hides and the manufacture and sale of leather goods.

The Department of Fomento (Promotion) has made available \$5,000 of the excess of the budget of 1918 for the completion of the **HIGHWAYS** now being constructed, chiefly from Managua to Matagalpa and from Port Diaz to Bluefields, both of which are expected to be completed in the near future.

The present **TOBACCO** crop of the Department of Masaya, one of the great tobacco producing zones of the Republic, is estimated at 12,000 quintals.

The Nicaraguan consul in Houston, Tex., reports the organization of the Inter-American Mercantile Syndicate for the operation of a **LINE OF DIRECT STEAMSHIPS** between Galveston and Nicaraguan Atlantic coast ports. The funds of this syndicate were subscribed by banks, capitalists, and manufacturers of Houston and neighboring towns.

In order to dispose of the mineral, stock, and agricultural productions of the Department of Nueva Segovia, the building of a **WAGON**

ROAD 26 leagues in length between Ocotal, capital of the Department, and San Juan de Limay, has been announced. When this road is completed Ocotal will also be in easy communication with Leon, since there is a good mule trail from San Juan de Limay to the latter place. It is believed that the District of Ocotal has a brilliant future, inasmuch as its climate is good, its soil fertile, and its crops abundant. The country is, furthermore, traversed by numerous rivers, has large areas of grazing lands, and, if provided with adequate transportation facilities, could easily be converted into an important agricultural and stock-raising section.

PANAMA.

Newspaper notices give account of the increase of the SUGAR BUSINESS in Panama; new companies have been lately organized in different parts of the country to raise cane and manufacture sugar on a large scale. One of the newly organized companies is the Sociedad Azucarera de Chitré, with a capital of 30,000 balboas, to develop the sugar industry in the Province of Herrera. The Panama Sugar Co. owns 11,456 hectares of land in the neighborhood of Cheriqui Viejo; of this 600 are planted with cane. Señores Chiari and Gamarra lately established a sugar factory in the District of Agua Dulce; 120 hectares are already planted with cane, and the planting of 200 more hectares, sufficiently cleared, has been commenced. This company has just received from the United States machinery capable of grinding 240 tons of cane in 24 hours and producing 11 per cent yield of sugar, or more than 26 tons in 24 hours. The Panama Sugar Co. has invested in this enterprise \$800,000.

Among Panama's wild edible products is the palm, which is perhaps best known as the "black palm," from which the hard blackwood used for canes is obtained. But its fruit is a source of food utilized by the Indians from time immemorial. It is a big red or yellow nut, with a thin rind and a thick pulpy interior, oily, and somewhat like a chestnut in flavor when cooked. The tree grows to a height of about 25 feet, and 6 or 8 inches thick, and its trunk is covered with long sharp spines which are extremely dangerous to the careless or unwary traveler through the jungle. It was cultivated by the Indians. An acre may be planted with 200 palms, each palm producing about 30 pounds of nuts, from which 20 per cent of oil may be obtained, so that an acre would produce more than half a ton of oil per annum. The oil is as good as any except coconut oil. The tree matures more quickly than a coconut, and grows in the interior. It is well worth investigating as a possible source of vegetable oil, while the timber is valuable for many purposes. For hedge rows or fences this palm is especially valuable.

The presidential decree of May 10 rescinded decrees 92 of May 26, 1917, and 87 of June 24, 1918, as no longer necessary, thus removing the restrictions on THE IMPORTATION, USE, AND SALE OF FIREARMS AND CARTRIDGES.

PERU.

The presidential decree of June 27 approved the general plans furnished by the Department of Waterworks and revised by the superior councils for the system of irrigation in the IRRIGATED AREAS in the department of the coast provided for by law No. 2674.

On the 28th of July, the National Independence Day, A NATIONAL EXHIBITION OF CATTLE was held in Lima by the Stockmen's Association at the instance of the provincial council of Lima.

The Guano Administration has received a concession from the Government to begin immediately the exploitation of the DEPOSITS OF GUANO on the following islands: Ballestas, Chincha, Isla Blanca, Asia, Pachacamac, Palominos, Cavinzas, San Lorenzo, Cocina, Colorado, the Huara Islands, Don Martin, Guañape, and Macabi. The administration may also exploit the deposits in the Pescadores Islands situated to the south and north of Mollendo; the work on the islands Santa Rosa, Punta de Coles, and Sama will be commenced by the end of October.

In order to induce the farmers of the Province of Lima to plant a good share of their land in potatoes TO INCREASE THE PRODUCTION OF FOOD and reduce the high cost of living, the Administration of the Grange School of the Province has published a table of the yield, expenses, and net profits of areas planted with sweet potatoes, beans, corn, white potatoes, and yuca as compared with areas planted with cotton. The net profits on the vegetables were greater, being 108 per cent on sweet potatoes, 86.7 per cent on beans, 43.8 per cent on corn, 64.3 per cent on potatoes, and 114 per cent on yuca, while cotton only yielded 59.9 per cent net profit. The value of the net yield per hectare in pounds (Peruvian pound equals \$4.86 in United States gold) was estimated as follows: Sweet potatoes, £40; beans, £18; corn, £7; potatoes, £26; yuca, £37; and cotton £23.

SALVADOR.

A manufacturing druggist from Guatemala has come to San Salvador to establish a FACTORY FOR PERFUMES, LOTIONS, TOOTH POWDERS AND TOILET ARTICLES. A large industrial laboratory, equipped with the latest imported chemical machinery, is to be installed.

La Prensa of San Salvador publishes a report on the discovery of OIL. For about a year news has been coming in from different parts

of the Republic relating to such discoveries. The find has in most cases been accidental, occurring when artesian wells were drilled for water. The richest fields so far discovered are the new ones in the district of Atiquizaya, and in Carolina, located north of San Miguel. The other discoveries are of less importance but there is every indication that the oil industry will be capable of great development in Salvador.

Under the name **UNIÓN AGRICOLA DE EL SALVADOR** an association for the development of agriculture has just been formed in the capital. Influential persons from different parts of the Republic form its membership, the president being don Miguel Dueñas.

In a meeting of tailors' operatives held in San Salvador at the quarters of the Salvadorean Labor Union the 1st of June, it was resolved to form **A TAILORS' UNION**, and a committee was appointed to draft the by-laws.

A short time ago the National Government sent an engineer to the United States to buy machinery to macadamize the **ROAD FROM SONSONATE TO AHUACHAPAN**. This highway is the most important outlet for the farming districts near Nahuizalco, Juayua, Salcoatitan, Apaneca and Ahuachapan.

Two residents of the city of Santo Rosa, Department de la Unión, have just made public their discovery of **GOLD AND SILVER MINES** in a place known as El Chilamate or Salitre in the same Department.

The daily freight and passenger service has been resumed on the **ORIENTE RAILROAD** between Cutuco and Santo Domingo, about twelve miles from Cojutepeque. The run from Cutuco to Santo Domingo is 202 kilometers. The section of the line from Santo Domingo to Santa Cruz de Michapa will be completed in three months as the necessary rails have arrived and the work is being carried forward rapidly. The stonework of the railway bridge over the Lempa River has been finished; the bridge will be the best of its kind in the country.

THE IMPORTATION OF HEAVY WINES, pastes, or powders made from the condensation of wine and capable of use in making wine, has been prohibited, also grape juice for making wine, and all chemicals and preparations made to imitate the flavor of the grape.

URUGUAY.

From the 1st of January to the 31st of March of the present year the **NUMBER OF ANIMALS SLAUGHTERED** was as follows: 314,827 head of beef cattle, 283,818 sheep; and 4,719 hogs. Of these totals 252,603 steers, 203,688 sheep, and 186 hogs were sent to refrigerating plants, salting places, and factories for exportation;

62,224 steers, 80,130 sheep, and 4,533 hogs were consumed by the country.

The FOREIGN COMMERCE of the Republic amounted to the sum of 43,807,104 pesos during the three months period beginning January 1 and ending March 31 of the present year; 8,295,881 pesos of this sum represents the imports and 35,511,223 pesos the exports.

The Department of Industries has AUTHORIZED THE EXPORTATION OF WOOD from the mountains of Cebollati. The Brazilian population of Santa Victoria depend almost entirely on this section for their supplies of wood.

On the 9th of June the president issued a decree fixing the amount of alcohol to be contained in the NATIONAL WINES.

VENEZUELA.

On the 25th of June THE CHAMBER OF COMMERCE OF PUERTO CABELLO was reorganized, officers being as follows: President, Dr. Jorge Rivas; vice president, Sr. Ricardo Berizguoitia, and secretary Sr. Lope Bello.

THE ASPHALT MINES OF VENEZUELA are among the richest and largest in the world. The mines are located in both the eastern and western sections of the country; in the eastern there is a lake of asphalt with an area of a mile and a half and in the interior of the country there is Bermudez Lake, covering an area of over a thousand acres. There are as well, large quantities in the District of Peder-nalles and along the banks of Maracaibo Lake. The use of this mineral is becoming more general every year and is capable of unlimited development. The United States imports almost 90 per cent of the Venezuelan asphalt.

Judging by recent statistics the CULTIVATION OF COFFEE has become one of the principal industries of Venezuela. The area planted in coffee amounts to more than 250,000 acres, and is produced for the most part in the northern and western part of the Republic. Venezuelan coffee, on account of its aroma and quality, is in great demand in foreign markets.



ECONOMIC^{AND} FINANCIAL AFFAIRS

ARGENTINA.

Among the principal assets shown on the balance of the NATIONAL ARGENTINE BANK of April 30 last were the following: Discounts and rediscounts, 335,526,664 pesos, currency; advances on current accounts, 277,011,934 pesos, currency, and 5,000,000 pesos gold; guaranteed bills receivable, 216,226 pesos, currency, and 16,349 pesos, gold, and debts in process of collection (*deudores en gestión*), 7,014,244 pesos, currency, and 21,230 pesos gold. The cash on hand on the date mentioned amounted to 313,191,027 pesos, currency, and 36,018,211 pesos, gold. The total deposits aggregated 1,178,008,932 pesos, currency, and 3,126,587 pesos, gold.

According to information from the Department of Finance the STATEMENT OF BANKS on April 30, 1919, showed the following amounts: Accounts current, time and savings deposits, 10,383,816 pesos, gold, and 2,776,518,337 pesos, currency; discounts and advances, 3,245,645 pesos, gold, and 2,003,653,067 pesos, currency. Cash on hand, 54,070,023 pesos, gold, and 799,590,218 pesos, currency. Paid up capital, 77,865,413 pesos, gold, and 354,067,218 pesos, currency.

BOLIVIA.

BILLS OF EXCHANGE ON LONDON at 90 days sight handed to the National Treasury by the Banco de la Nación Boliviana, during the period from August, 1918, to March, 1919, amounted to \$59,770 pounds sterling. Drafts on London sold by the same bank during the same period amounted to 964,024 pounds sterling.

BRAZIL.

According to a presidential message of May 3 last, the collection of PUBLIC REVENUES in 1918 aggregated 103,519,715 milreis, gold (gold milreis = \$0.5462), and 380,995,807 milreis, paper (paper milreis = \$0.275). This is 32,448,641 milreis, gold, and 67,417,192 milreis, paper, more than the amount estimated in the budget for the present year.

On December 31, 1918, the FOREIGN DEBT of Brazil, consisting of the various loans negotiated since 1883, amounted to £116,432,274, or an increase of £984,058 since the same date of 1917. The increase

in 1918 included £1,000,000 for the purchase of the Goyaz Railway and £47,758 for the issue of funding bonds for 1914.

In 1918 and during the first quarter of 1919 the Brazilian Government put in circulation a number of issues of paper money for the purpose of offsetting its diminished revenues and in order to carry out plans authorized by Congress. On December 31, 1917, the outstanding currency was 1,389,414,967 milreis, which, plus the new currency issued from January, 1918, to March 31, 1919, 320,000,000 milreis, made a total on the latter date of 1,709,414,967 milreis. During the period from January, 1918, to March 31, 1919, bank bills were redeemed to the amount of 301,493 milreis, leaving in circulation on March 31, 1919, currency to the amount of 1,709,113,474 milreis.

At the beginning of the fiscal year 1918, the BANK OF BRAZIL had 20 agencies. These were increased to 40 before the close of that year, and all of them did a large and prosperous business. During the year referred to this bank bought foreign exchange to the amount of £11,796,557, and sold foreign exchange aggregating £11,799,698. In 1918 the shares of the Bank of Brazil were always above par, the minimum quotation having been 220 milreis, and the maximum 242.

The most striking fact in the commercial expansion of Brazil during the last 20 years has doubtless been the enormous development of the BANKS OF THE STATE OF RIO GRANDE DO SUL. Not content with having founded no less than five banking houses in Porto Alegre and Pelotas, the pluck and perseverance of the inhabitants of that State have caused them to establish agencies, branches and correspondents throughout the entire Commonwealth, and to go beyond the bounds of the State in search of business and markets. The five banks referred to are as follows: Bank of the Province, founded in 1858 with a capital of 1,000 contos, divided into 5,000 shares of 200 milreis each. In 1910 this bank increased its capital to 10,000 contos, and on December 31 of that year had a reserve fund of 10,000 contos, that is to say, double the amount of its nominal capital. The dividends paid during the 121 half-years of its existence amounted to 23,304 contos. It now has 12 agencies, 16 branches and 63 correspondents in Brazil in addition to its business connections in Europe, the United States and a number of countries of South America. The National Bank of Commerce, which was founded in 1895, with a subscribed capital of 2,500 contos, increased its capital in 1910 to 5,000 contos, and in 1917 to 10,000 contos. This bank has 26 branches and 58 correspondents in the State of Rio Grande do Sul, and 7 branches and 80 correspondents in the rest of Brazil. The Pelotense Bank was established in 1906 in the City of Pelotas with a capital of 3,000 contos, which was increased in 1910 to 5,000 contos, in February, 1913, to 10,000 contos, and in March, 1918, to 15,000 contos. During the latter year, in addition to the accustomed divi-

dend of 12 per cent, half yearly dividends of 2 per cent were paid shareholders, making the total earnings during that year 16 per cent. It has 21 branches, 30 agencies and 93 correspondents in the State, and on December 31, 1918, had on deposit 102,000 contos, while its shares, which have a nominal value of 120 milreis, were quoted at 225 milreis. The Franco-Brazilian Commercial Bank was founded with a capital of 6,400 contos, and pays a dividend of 8 per cent. It has a reserve fund of 523 contos. The Porto Alegre Bank, established in 1906 with a capital of 120 contos, and whose object was to advance money and make loans to State and municipal employees, gradually increased its funds until in 1915 they amounted to 1,000 contos. During that year this institution decided to enter the regular banking business with a capital of 2,000 contos, which sum was increased at different times until in February last it amounted to 4,000 contos. Its shares are at a premium of 50 per cent. The five banks mentioned had on December 31, 1918, reserve funds aggregating 23,854 contos and deposits amounting to 312,256 contos, or more than \$78,000,000.

CHILE

According to a recent message of the President the RECEIPTS AND EXPENDITURES of the National Government in 1918 were as follows: Gold receipts, 94,918,327 gold pesos (gold peso = \$0.365); gold disbursements, 72,580,606 pesos, or an excess of gold receipts over gold expenditures of 22,337,721. The receipts in currency amounted to 239,981,714 pesos (paper peso = \$0.195) and the expenditures to 224,128,059 pesos, leaving a currency credit balance of 15,853,655 pesos. Adding to this amount the sum of 9,734,561 pesos currency, which was on hand at the close of 1917, makes an available currency total of 25,588,216 pesos. Of the gold excess, 11,436,839 pesos were used in canceling the deficit of 1917, 5,733,333 to reimburse the Port Works Loan Fund, and 5,167,549 pesos remained available for use in liquidating the gold expenses of the present year. Of the 25,588,216 pesos currency, 10,000,000 pesos were applied to the cancellation of one-third of the treasury notes issued for the purpose of reducing the fiscal deficit, and the balance of 15,588,216 pesos remained available for the payment of currency expenditures of the present year.

In December last FUNDS OF THE GOVERNMENT OF CHILE deposited in foreign banks amounted to £4,000,000. After making payments required by the foreign debt, as well as for administrative, diplomatic, and consular services, this fund had a balance on hand of £2,500,000 and \$1,437,000, the latter sum deposited in United States banks. The Government's account current with the Bank

of Chile has continued to show a considerable credit balance, which on May 20 last amounted to 41,000,000 pesos.

During the first quarter of 1919 GOVERNMENT REVENUES aggregated 52,812,965 pesos currency, and 8,318,048 pesos gold.

COLOMBIA.

Inasmuch as the Government of the United States has decided to issue unrestricted licenses permitting exports of gold to Colombia with the object of encouraging and facilitating the circulation of large quantities of AMERICAN GOLD COIN in that Republic, the banks in Bogota have agreed to receive said gold coin at par with the pound sterling, which is a legal tender in Colombia, and in furtherance of this decision the Treasury Department has sent to its collectors, and to customhouse and salt-mine administrators, etc., a circular recommending that payments made to them in gold coin of the United States be accepted at face value. .

Executive Decree No. 931, dated May 5, 1919, provides for the establishment of a board to take charge of the AMORTIZATION OF TREASURY BONDS, prescribes its duties, and appoints its members.

The issue by the Government of BONDS OF THE INTERNAL DEBT of Colombia, under powers granted it in conformity with law 123 of 1918, amounts to \$7,885,000, of which \$2,655,000 are set aside for the construction of public works.

Press reports state that the problem relating to the fall in EXCHANGE was definitely solved on June 11 last by the action of the United States Government in freeing from restrictions exports of gold from that country to Colombia.

The principal Colombian banks have advised the public that in future ACCOUNTS CURRENT AND SIGHT DEPOSITS payable in English, American, or Colombian gold, will be treated as payable in "COINED GOLD."

The PACIFIC MORTGAGE BANK, recently incorporated at Cali, has commenced business with a capital of \$600,000. This bank will establish a branch in the city of Buga.

For the purpose of opening a BRANCH BANK of the American Foreign Banking Corporation, a United States enterprise, Howard L. Bensen, its representative, arrived in Cali early in May last. The gentleman referred to informed the press of that city that the chief reason which induced the bank to found a branch in Cali was the construction and opening to public traffic of the wharf at Buenaventura, since the operation of same will tend to greatly stimulate and facilitate commerce. Mr. Bensen predicts the arrival in Colombia within the next few years of a large number of immigrants.

The municipality of Barranquilla has authorized the president of the municipal council to negotiate with the consul of Colombia

in New York and with the banks of that metropolis concerning the concluding of a LOAN of \$3,000,000, the proceeds of which are to be used in the paving of the streets, the building of sewers, the sanitation of the city, the construction of public schoolhouses, and the erection of a municipal building.

CUBA.

The revenue collected by the CUSTOMS OF SANTIAGO DE CUBA for the first six months of the present year amounted to \$1,554,099. This sum represents an increase of \$74,647 over the amount collected in the corresponding period of the preceding year.

According to a statement to shareholders, the BANCO ESPAÑOL DE LA ISLA DE CUBA obtained profits in the first six months of the present year amounting to \$1,102,060. Of this amount \$800,000 was placed in the reserve fund, which added to the reserve fund, amounting in December, 1918, to \$1,900,000, makes a total of \$2,700,000.

The total revenue from 17 months of the OPERATION OF THE STAMP TAX, from the 1st of September, 1917, to the 31st of January, 1919, was \$4,676,735, which represents an approximate monthly average of \$275,102.

According to newspaper notices the BANCO INTERNACIONAL DE CUBA has just acquired a centrally located building for \$80,000 in the city of Cienfuegos, where it will locate a branch.

At the suggestion of the Department of the Treasury, the President issued a decree the last of July extending for four years the CONTRACT MADE WITH THE BANCO NACIONAL DE CUBA, referred to in decree No. 949 of June 28, 1915.

The receipts of the HABANÁ ELECTRIC CO. during the first four months of the present year amounted to \$2,826,512, and the expenditures to \$1,413,011, which represents a gross profit of \$1,413,501 against \$1,169,291 for an equal period in 1918, when the receipts were \$2,567,636 and the expenditures \$1,398,345.

DOMINICAN REPUBLIC.

According to data furnished the press by the secretary of the Dominican Claims Commission, relating to its work since its organization in 1917, the number of CLAIMS SETTLED from that date to June 30, 1919, aggregates 2,279, valued at \$1,152,619. The number of claims rejected were 348, valued at \$874,669.

At the beginning of July, 1919, the National Bank of Santo Domingo informed the public that it would buy 5 per cent interest-bearing BONDS OF THE DOMINICAN GOVERNMENT of the issue of 1918 of the following denominations: \$1,000 bonds, \$500

bonds, and \$100 bonds. This bank has branches at San Pedro de Macoris, Sanchez, Puerto Plata, and Santiago.

The INTERNAL REVENUES of the Government during the first five months of the present year amounted to \$762,505. The collections by months were as follows: January, \$122,099; February, \$124,734; March, \$168,836, April, \$140,307; and May, \$206,529. Of these revenues \$261,509 were collected on alcohol. The internal revenues of the City of Santiago during the first six months of the present year were \$143,005.

A recent governmental decree approves an ordinance of the City of Santo Domingo establishing a MUNICIPAL TAX of 4 per cent on the amount of lawful wagers made in the hippodrome of the commune of Santo Domingo, or in any other sport in which the law authorizes betting. This tax must be paid into the municipal treasury within 24 hours after the sporting events referred to in the ordinance occur.

ECUADOR.

In July the city government of Guayaquil contracted A LOAN OF 200,000 SUCRES from the Banco Agricola to build a municipal market.

By the terms of a contract signed by the directors of the Quito-Esmeraldas Railroad with the Banco del Pichincha of Quito, the railroad promises to deposit all the funds appropriated for this work by the legislative decrees of September 6, 1913, and September 28, 1918, in the bank; the bank, in return is bound to MAKE A LOAN OF 200,000 SUCRES, for which the aforesaid funds shall be security until its cancellation.

A presidential decree of June 5th fixed the RATE OF EXCHANGE ON GOLD with United States, Panama, England, France, Spain, Switzerland, Peru, and Chile, rendering noneffective the decree of May 9th on the same subject.

GUATEMALA.

The Department of Commerce has named a committee composed of Señores Carlos Herrera, Manuel Zebadúa, Diego Polanco, Carlos Salazar, Luis Dardon, and Virgilio Rodriguez Beteta, to draft a banking law under which to organize and operate the BANCO NACIONAL created by a law passed in the National Legislative Assembly last year. The draft of the law will be submitted for the approbation of the President. The committee held its first meeting in the Department of Commerce under the auspices of the minister, who organized it and gave it full power in the name of the President of the Republic to carry out its commission. Señor Carlos Herrera was elected president of the committee.

HONDURAS.

The RECEIPTS OF THE NATIONAL RAILWAY in April last aggregated 40,700 pesos (silver peso = \$0.8019), and in May 40,100 pesos, amounts considerably in excess of those of previous months.

The GENERAL BUDGET of Government receipts and expenditures for the year 1919-1920 estimates the receipts at 6,482,487 pesos, and the expenditures at a like sum. The estimated expenditures in pesos are as follows: Department of Home Government, 841,929; Justice, 230,559; Foreign Relations, 256,823; Public Instruction, 600,895; Fomento, Public Works and Agriculture, 969,055; War and Marine, 1,997,920; Finance, 521,306; Public Credit, 100,000; National Railway, 534,000, and Public Highways, 430,000.

MEXICO.

The Department of the Treasury and Public Debt has just published a report on the STATE OF THE BANKS OF THE REPUBLIC on the 31st of December, according to which the liabilities of those institutions amounted on that date to 410,763,459 pesos, distributed as follows: Subscribed capital 114,025,000 pesos; reserve fund, 30,038,762 pesos; contingent fund, 11,365,045 pesos; sight deposits, 21,319,363; deposits at three days sight, 19,455,616 pesos; notes in circulation, 129,984,148 pesos; outstanding obligations, 31,830,194 pesos; loans, 52,745,330 pesos.

The Government of the Federal District has started a movement in favor of the reestablishment of PAWNSHOPS that were abolished in Mexico some time ago.

Due to the efforts of a rich agriculturist of Chiapas, a FARMERS' BANK has just been organized, which will devote itself exclusively to making loans to farmers who need funds to work their plantations; thus giving an impetus to the development of national agriculture.

According to reports of the Post Office Department the value of MONEY ORDERS EXCHANGED BETWEEN MEXICO AND THE UNITED STATES from September, 1918, to June of the present year amounted to the sum of 29,000,000 pesos, or 50 per cent more than in any previous period of the same number of months.

SALVADOR.

The President has appointed a committee composed of Señores Francisco Dueñas, Calixto Velado, Francisco A. Lima, Belarmino Suárez, Herbert de Sola, Mariano Zeceña, René Keilbauer, Roberto Aguilar, Carlos García Prieto, Bartolo Daglio, and Isidro Moncada, to draw up a plan for the valorization of THE NATIONAL CURRENCY IN RELATION TO GOLD COIN as a preliminary to the establishment of the gold standard.

URUGUAY.

The President has been authorized by Congress to acquire the **RIGHTS AND TITLES TO THE RAILWAY AND TRAMWAY OF THE NORTH**, or failing this the controlling interest in the company. The purchase will be made by floating bonds paying 6 per cent with $\frac{1}{2}$ per cent amortization fund. The amount to be spent in the purchase is not to exceed 616,000 pesos.

By presidential decree of May 26, Article 5 of the Budget for national improvements, authorizes the **ISSUE OF BONDS FOR THE PUBLIC WORKS DEBT OF 1918 AMOUNTING TO 2,000,000 PESOS**. This issue will form an integral part of that debt, and will be divided into 1,800 bonds of 1,000 pesos denomination, and 2,000 bonds of 100 pesos denomination.

NOTES IN CIRCULATION in the Republic amounted to 52,554,-645 pesos on the 31st of March, the gold on hand being 50,046,362 pesos.

According to official figures the **PROFITS OF THE RAILROADS** during the period from July, 1918, to March, 1919, inclusive, amounted to 7,463,780 pesos, distributed as follows: Central, 6,184,000; Nor-oeste, 270,590; Midland, 734,124; Norte, 89,648; Unidos, del Este, 185,417 pesos. For a like period of the previous year the amount was 6,373,713 pesos.

The nominal value of the 2,746 deals in the **STOCK EXCHANGE** during the period from January 1st to March 31st of the present year was 14,012,076 pesos, and the actual value was 12,343,305 pesos.



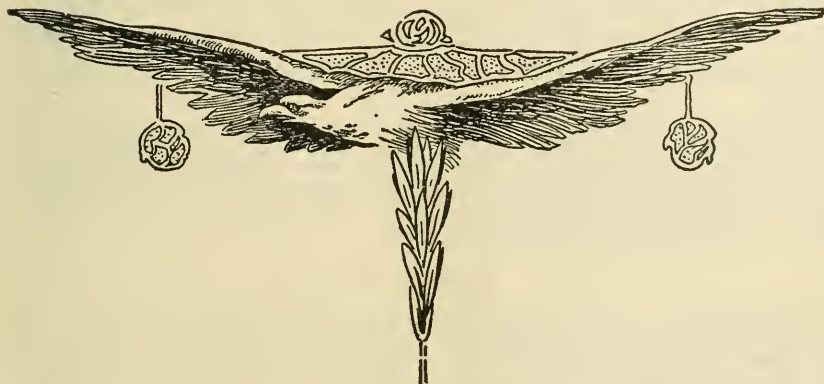
INTERNATIONAL TREATIES

UNITED STATES—VENEZUELA.

On July 3, 1919, a COMMERCIAL TRAVELERS' CONVENTION was signed in Caracas by the representatives of the Governments of the United States and Venezuela. The provisions of this treaty are the same as those contained in the treaties on the same subject recently concluded between the United States and the Republics of Guatemala and Panama.

URUGUAY—GREAT BRITAIN.

In accordance with an exchange of notes, dated in Montevideo on the 9th and 10th of April last, the Governments of Uruguay and Great Britain, have agreed that the interpretation of clauses I and VI of the General Compulsory ARBITRATION TREATY of April 18, 1918, are equally applicable to controversies which may arise in future between the High Contracting Parties. Article I of the treaty states that all controversies of whatever nature which may arise between the contracting parties, and which it may not be possible to settle through diplomatic channels, shall be submitted to arbitration, while Article VI provides that, with the exception of cases in which justice is denied, Article I of the treaty shall not apply to questions originating between a citizen or subject, society or corporation of one of the High Contracting Parties and the other contracting State when the judges or courts of the latter are, in accordance with their laws, competent to settle the question in dispute.



LEGISLATION

BRAZIL.

Legislative decree No. 3,725, dated January 15, 1919, makes a number of corrections in the CIVIL CODE, and provides for the printing of an edition of 5,000 copies of same.

CHILE.

On May 20 last the Treasury Department issued rules and regulations explaining the present COASTWISE LAW. Under these rules and regulations the transportation of passengers and freight from Punta Arenas and other ports of the Republic, or vice versa, shall not be considered coastwise trade. On and after February 9, 1927, the carrying of freight between ports of the Republic shall be exclusively in national bottoms, with the sole exception of South American vessels which, through reciprocity treaties, may have obtained from the President of the Republic the right to engage in the coastwise trade of Chile. Within the meaning of the coastwise law, vessels which fulfill the requisites of the navigation law shall be considered national vessels. In accordance with the rules and regulations half the crew of national vessels engaged in the coastwise trade, beginning with the year 1922, shall be composed of Chilean seamen, and the captain and pilot shall also be Chileans.

HAITI.

On June 13, 1919, the President of the Republic promulgated a law for the protection of TRADE MARKS in accord with the resolutions adopted at the Pan American Conference held in Buenos Aires in 1910. The law provides that a bureau for the registration of trade marks in Haiti be established in the chamber of commerce of Port au Prince.

According to the terms of a law which was promulgated in June last every person who has been in the employ of the Haitian Government for a period of 25 years or more is entitled to a pension upon his attaining the age of 60 years.

VENEZUELA.

The President of the Republic published A NEW ALIEN LAW on June 24 which repeals the alien law of June 30, 1915, and the alien admission and deportation law of June 21, 1918. The

principal provisions of the new act are the following: Aliens shall enjoy the same civil rights as Venezuelan citizens with the present exceptions and exceptions that may be established. Aliens are divided into two classes, resident and transient. Aliens arriving in Venezuela shall present themselves within 15 days before the highest civil authority in their place of residence, to prove their identity, their intentions of settling in Venezuela, and the business or occupation in which they intend to engage. Aliens shall be subject to the same duties as citizens, but shall be exempt from military service and personal taxes for war. Aliens shall observe strict neutrality in regard to Venezuelan national affairs; they shall not be permitted to become members of political associations, edit political publications, write on political subjects, nor discourse publicly on this subject, and shall refrain from mixing even indirectly in the internal affairs of Venezuela. The alien who infringes this neutrality shall be considered a dangerous person and may be deported from the territory of the Republic. Aliens shall not hold public office, but the President may permit them to serve in the Beneficencia Nacional, Public Health Service, or civil or military instruction. Aliens shall not have the right to take recourse to diplomatic means until all legal means have been exhausted and it is evident that justice has been defeated. Aliens shall have the right, like citizens, to indemnity from the Government for damage caused intentionally in times of war by legally constituted authorities acting in their official capacity. These claims shall be adjudged in accordance with proceedings established by national legislation for the proving and appraising of such claims and damages. Aliens can not bring claim against the Government for the damage or loss occasioned by agents or armed forces of a revolution, but may bring suit against the authors of the damage. Entry to Venezuela is forbidden to aliens disturbing the public peace, or whose presence may jeopardize the international relations of the Republic of Venezuela. Entry is forbidden to the alien coming within the causes for exclusion named in the immigration law, to aliens guilty of penal offense punishable as such under Venezuelan law, to aliens without a profession, trade, or means of support; to aliens under 16 years of age not under the care of another person, or coming to be under the protection of a resident of the country; to aliens who are members of societies opposed to public order and peace, or who plot the destruction of Governments or the assassination of public officials; to aliens suffering from leprosy or other diseases dangerous to the public health. In case of war with another nation, internal disturbance or armed rebellion, providing public order is disturbed the President of the Republic may arrest, confine, or deport aliens who interfere with the reestablishment of peace, though they be well established in the country. Persons who violate

the rules for admission to the country, or who are a menace to the public health or order, have committed crimes punishable by Venezuelan law, or who disturb international relations and do not observe strict neutrality shall be considered undesirable and dangerous persons.

PUBLIC INSTRUCTION AND EDUCATION

BOLIVIA.

The students from Potosí enrolled in the University of Sucre have formed a society known as the STUDENTS' CLUB "15TH OF MAY." The officers are as follows: President, Señor Carlos de la Peña; vice president, Señor N. Meneses; and the secretaries, Señores Manuel Garnica and José Gonzalez.

The Students Association of Sucre organized a CONTEST IN NATIONAL HISTORY AMONG ALL THE STUDENTS IN THE CITY; the prize themes were on episodes and famous characters of the War for Independence, and were read as part of a literary and musical program given by the Club in honor of the May holidays.

Many young girls and men have entered upon the courses given by the BRANCH OF THE MERCANTILE INSTITUTION OF VALPARAISO which has recently been opened in Cochabamba. The method of instruction is one of the most advanced, and has had the most satisfactory results in South America. There are no oral examinations, but each student is required to take a written examination, without access to his books, six days before the end of the course. This method shows the actual knowledge acquired by the student during the year.

BRAZIL.

Under decree No. 13,014 of May 4, 1918, the Federal Government appropriated 18,000 milreis annually as a SUBVENTION TO THE SCHOOLS founded by the State governments for teaching the Portuguese language, geography and history of Brazil in municipalities organized by former European colonies.

CHILE.

For practical purposes and in accordance with modern methods the REFORM SCHOOL in Santiago has been given a tract of land for use in teaching its pupils practical, intensive agriculture. The

result of this experiment will guide the Government in adopting or rejecting this plan in all its reform schools for minors throughout the country.

The ERECTION OF SCHOOL BUILDINGS is progressing in Chile. In 1918 the Federico Errázuriz School, housed in a model school edifice in which day and night classes are held, was opened to public service. One-third of the instruction imparted in this school is of an industrial character. During the present year the construction of two large school buildings in Santiago, one in Valparaiso, and another in Concepcion, together with most of the rural schoolbuildings provided for in the law of 1916, will be completed.

The organizing committee of the FIRST PRIMARY EDUCATION CONGRESS, which is to meet in Santiago, has divided the work of the Congress into the following sections: (1) Organization and scholastic law—economic and social betterment of teachers; (2) pedagogy—methods and programs, professional improvement of teachers; (3) education—school houses, school furniture, textbooks and school supplies; (4) physical culture—hygiene and temperance; (5) social and sexual education; (6) vocational, manual, and technical education; (7) esthetic and musical education; (8) education of abnormals; and (9) other school work.

COLOMBIA.

Señor don Avelino P. Ferreira, minister from Argentina to Colombia has addressed a note to the Department of Foreign Relations informing them that he had been instructed by his Government to offer to Colombian students THREE SCHOLARSHIPS IN THE ARGENTINE MILITARY COLLEGE. The Colombian press has expressed its appreciation of this offer, as the Argentine Military College is one of the most renowned institutions of its type in South America.

A UNIVERSITY FOR WOMEN, the first of its kind in the country, has been founded in Medellin. The curriculum is as follows: Literature, three years; postal section, two years; stenography and typewriting, one year; school of nursing, two years.

The assembly of the State of Cundinamarca has passed an ordinance founding an ANNUAL SCHOLARSHIP FOR STUDENTS from Cundinamarca who complete their engineering course at Bogota. In March a contest will be held for students who have completed their studies the preceding year; the themes will be chosen by the Society of Engineers. The honor student will be sent abroad by the Government to qualify for a degree in whatever branch of engineering the Government selects, and will go to a university, also selected by the Government, for a period not to exceed three years.

For the purpose of encouraging Colombian artists the President, in decree No. 1160 of June 6, 1919, has created an ANNUAL CONTEST FOR WORKS OF ART. The conditions are the following: Every year, in June, will be held an exposition in the Pavilion of Beaux Arts in the Parque de la Independencia at Bogota, when the works of art executed during the year and submitted by Colombian artists will be passed upon by the committee of judges, composed of the council of the School of Fine Arts and two artists named by the Department of Education. The best or two best works of art, according to the decision of the committee, will be acquired by the Government for the art gallery in the National Museum.

ECUADOR.

The by-laws of the FEDERATION OF ECUADOREAN STUDENTS were approved by the President on July 3. Señor don Guillermo Pólit, student and Librarian of the University, has been elected President of the Federation.

The Superior Council of Public Education on May 12 ratified clause No. 2 of article 123 of the law governing education, thereby reinstating in the Central University the COURSE IN PHILOSOPHY AND LETTERS as an independent course. The new course will comprise two sections; that of philosophy and letters properly speaking, and a course in pedagogics. The first course will be for the purpose of qualifying students for degrees, completing the University course, and developing general culture; the second course will have the object of forming and training a body of professors qualified in secondary and special subjects. The courses in both sections will last four years; the time devoted to each of the subjects will be indicated in the plan of studies of the advanced courses to be issued at an early date by the Superior Council. Courses in the Spanish language and literature will be obligatory for all students entering the school of jurisprudence, the degree of B. A. will be required of students who enter the school of philosophy, and a degree of B. A. or of "normal professor" to enter the school of pedagogy.

At the completion of the courses graduates of the first section will be given the degree of doctor of philosophy and letters, and graduates of the second section the same or the degree of professor of secondary or special education. According to the subjects to which the students devote themselves the titles of the professors of secondary or special education may be as follows: Professor of philosophy, Spanish language and literature; professor of philosophy and history; professor of physical science and mathematics; professor of natural science and geography; and professor of languages. The council will later arrange a program for the courses in higher education. Only the first courses will be taught the coming year in both sections, the others will be introduced in the course of time.

The "Rita Lecumberry Normal School" of Guayaquil has been raised to the grade of a NORMAL INSTITUTION OF THE REPUBLIC, subject to the conditions governing like institutions of Ecuador.

GUATEMALA.

On the 30th of June A NIGHT SCHOOL FOR WORKING WOMEN was officially inaugurated as a branch of the "Miguel Garcia Granados" school for girls. The curriculum will include the cutting and making dresses, the making of palm hats and artificial flowers, as well as reading, writing, mathematics, etc.

A new school under the name of TECHNICAL ACADEMY "ESTRADA CABRERA" will shortly open in Old Guatemala. It should be of much benefit to young Guatemalans who wish to become agriculturists or engage in the industries on which the future of the nation largely depends. The courses of study will emphasize the analysis of earths, fertilizers, and methods of cultivation; in other words it will really be an agricultural school.

HONDURAS.

On June 9 there was opened to public service in Tegucigalpa, with appropriate ceremonies, the CENTRAL TEACHERS ACADEMY, organized by the General Bureau of Public Instruction. The following officers were elected: Prof. Miguel Morazán, president; Prof. Cecilio Colindrès, vice president, and Prof. Benjamin M. Guzman, secretary. This academy will soon begin a series of public lectures which will be published in book form by the president of the institution.

MEXICO.

The Mexican minister to Cuba, through the Department of Foreign Relations, has suggested to the National University the advisability of an exchange of students between the two countries. The University of Mexico has received the suggestion favorably and will consider means to bring about such an exchange at an early date.

The SCHOOL OF AVIATION in Mexico has been discontinued by order of the President. This was a preparatory school for cadets who wished to enter the Military Air Service.

NICARAGUA.

The Department of Public Instruction has ordered the establishment of PRIMARY SCHOOLS at Juicapa, La Escalera, Sebaco, San Pedro, Susama, Molino Sur, Asica, Matasano, Cañedas, Gualendarriba, Pueblo Viejo and Corneta, Department of Matagalpa. This shows the encouragement the National Government is giving to education throughout the Republic.

An agreement made by the Department of Public Instruction with the NATIONAL EASTERN INSTITUTE in Granada, permits the Government to send for a term of two years to that school, 50 free scholarship students. During the period referred to the Government grants a subvention of \$300 a month to the institute.

PERU.

On the 23d of June the DENTAL CLINIC of the College of Medicine was inaugurated at the Plaza de la Inquisición of the capital. The clinic is under the direction of Dr. Wenceslao Salazar, who holds the dual office of director and professor of the faculty of medicine. After the inaugural ceremony was over a meeting of the Association of Dental Students was held and a new executive committee was elected; Señor César Cháves Herrera was elected president.

SALVADOR.

In order to make use of the scholarships offered by the Mexican Government to Salvadorean students desirous of taking up MECHANICAL STUDIES in the Mexican Government plants, the President has decided to hold a contest for students from 18 to 25 years of age who have completed not less than two years of the university course in good standing. The Salvadorean Government will pay the traveling expenses, while the Mexican Government includes the expenses of housing and maintenance in the scholarship.

The last of May the National University as part of its extension course began a series of LECTURES ON ECONOMICS in regard to important points connected with the National currency. The first lecture was delivered by Dr. Belarmino Suárez at the university.

VENEZUELA.

Two FEDERAL PRIMARY SCHOOLS have been established in the city of Tocuyo, State of Lara. The schools are named in honor of two Venezuelan benefactors and educators, José Gregorio Hernandez, and Padre Pérez Limardo.

The President by decree of July 4 incorporated the following chairs in the LYCEUM OF CARACAS: Applied physics, applied chemistry, and practical natural history, the three courses constituting the section of natural and physical science.



GENERAL NOTES

ARGENTINA.

On the 26th, 27th, 28th, 29th, and 30th of May last, the FIRST CATHOLIC SOCIAL CONGRESS of Latin America was, held in Buenos Aires with delegates from Argentina, Chile, Brazil, Uruguay, Paraguay, and Bolivia in attendance.

With the object of encouraging technical preparation of members of the DIPLOMATIC AND CONSULAR SERVICE, the Department of Foreign Relations has decided to invite persons in that service on vacation in the Republic to attend university courses in the national capital relating to diplomatic and consular subjects. This decision was made because the long vacations granted to members of the service referred to enables them to take advantage of university instruction of this kind and to acquire information which will prepare them to better perform the duties of their calling. The instruction will consist of lectures on the laws of the country, etc., and especially concerning port, customs, and consular laws and regulations, as well as on statistics relating to the Argentine Republic.

During the latter part of May last an EXPOSITION OF JAPANESE ART was held in Buenos Aires, in which exhibits of water colors, engravings, paintings, works of art, etc., were made.

The commission in charge of the MONUMENT to Emilio Mitre has awarded its execution to Hernan Cullen Syerza, an Argentine sculptor, whose design was unanimously accepted by it.

BOLIVIA.

The Post Office Department has given instructions for DIPLOMATIC POUCH SERVICE between the Bolivian legation in Río de Janeiro and the Minister of Foreign Relations, and the Brazilian Department of Foreign Relations and the Brazilian minister at La Paz.

The municipal council of La Paz has passed an ordinance ON THE NAMING OF STREETS, prohibiting the change of names of the city streets in the future. The ordinance further provides that previous to the naming of public highways there shall be a review of political history with a view to selecting the name of a famous Bolivian or of a noted battle. It forbids the selection of names of persons still living. The ordinance has also commissioned the office of public works to present plans showing the unnamed streets.

A short time ago Señor José María Linares, and Señor Ricardo Mujía were appointed MINISTERS PLENIPOTENTIARY FROM BOLIVIA to the countries of Peru and Argentina respectively.

Under the name of COMMERCIAL GUIDE OF LA PAZ, Señor Francisco Sazatornil has just published a work which is the most complete of its kind, for beside being a guide it lists and describes all the business activities of the city, including merchants, industrial plants, and business offices in general.

BRAZIL.

In 1918 the length of the TELEGRAPH SYSTEM of Brazil aggregated 41,996 kilometers, as compared with 39,666 kilometers in 1917. At present there are 3,897 kilometers of line under construction. In 1918 telegrams to the number of 5,350,606 were transmitted, or 945,156 more than in 1917.

A POPULATION CENSUS of Brazil is to be taken in 1920 by the General Bureau of Statistics. While taking this census statistics will be gathered showing the present economic condition of the country.

The CABINET of Dr. Epitacio Pessoa, who was inaugurated President of Brazil on July 28 last, is as follows: Minister of the Interior, Alfred Pinto; Minister of Foreign Affairs, Azevedo Marques; Minister of Finance, Homero Baptista; Minister of Communications, Gires de Rio; Minister of Agriculture, Simões Lopes; Minister of Marine, Paulo Soares; and Minister of War, Pandia Calogeras.

CHILE.

On June 1 last the NATIONAL CONGRESS assembled in regular session in Santiago, and heard the reading of the President's annual message.

The Government of Chile proposes to send to Rio de Janeiro a SPECIAL EMBASSY for the purpose of conveying a message of cordiality and good will for the various manifestations of international courtesy which Brazil has shown to Chile within the last few years.

The administration of the PENAL INSTITUTIONS of Chile has been greatly improved by the establishment of Government shops for training and reforming criminals by means of useful occupations and encouragement to save. This plan also tends to relieve the State of a part of the expenses necessary in maintaining jails.

An executive decree of June 12 last establishes a NATIONAL INSTITUTE OF CRIMINOLOGY in connection with the penitentiary in Santiago. A committee has been appointed to formulate and submit to the Government a working program together with rules and regulations for the organization and operation of said institute.

A GENERAL CENSUS of the Republic will be taken on November 27 next. The last census was taken in 1907.

The FIRST NATIONAL CONGRESS OF NURSES FOR CHILDREN (Primer Congreso Nacional de Gotas de Leche), in cooperation with medical societies, charitable organizations, and philanthropic persons, will meet in the city of Santiago from the 14th to the 17th of September, 1919.

COLOMBIA.

The offices of MINISTER OF FOREIGN RELATIONS AND MINISTER OF PUBLIC INSTRUCTION are to be filled by the appointment of Dr. Hernando Holguín y Caro to the former, and Dr. Miguel Abadía Méndez to the latter post.

The 11th of May last the ELECTIONS FOR REPRESENTATIVES to Congress took place.

The FOURTH MEDICAL CONGRESS OF COLOMBIA will meet in Tunja on the 7th of August by invitation of the National Academy of Medicine and the Third Medical Congress of Cartagena.

The committee in charge of the celebration of the 20th of July and the 7th of August having in mind the centenary of the Battle of Boyaca, and the necessity of encouraging musical art among native composers, decided to open a CONTEST, offering prizes for the two best musical works by Colombian composers, interpreting the spirit of the national holiday, and commemorating the Battle of Boyaca.

A general meeting was held the middle of May in Bogotá to found a FREE MILK STATION. The project is to provide an institution such as other countries have to furnish sterilized milk to babies of the poor, and to give competent advice to poor mothers on the care and feeding of children.

Don Diego Dublé Urrutia, the new MINISTER FROM CHILE TO COLOMBIA was received in public audience on May 24.

The departmental headquarters of the COLOMBIAN RED CROSS was founded in Cucuta the 1st of May. General Justo Duran was elected president.

A newspaper entitled EL DIARIO DE SANTANDER, the first to be published in Bucaramanga, is under the management of Señor Alcibíades Argüello and Señor Mario García Peña.

The first number of the REVISTA DE DERECHO PENAL (Criminal Law Review) has just been published by the Sociedad de Derecho Penal.

According to statistics just published the city of Bogotá has a population of 137,571.

CUBA.

The 11th of July the President sanctioned the CENSUS LAW recently passed by Congress. By this law was created a national committee of the census headed by a magistrate of the Civil Supreme Court, to be chosen by secret ballot of this body, a professor of the

university, and an engineer chosen by the Society of Engineers. The first officer will be president, and the latter, secretary.

Señor Guillermo Sánchez y Reyes, chief of the Bureau of Personnel, Estates, and Accounts of the Department of Justice, has been commissioned by the President to go to the United States to study the most advanced methods in the **COMPILATION OF CRIMINAL STATISTICS**, and to collect data required by the Director of the Department of Justice.

Upon the request of the President of the Republic, the National Congress declared the 14th of **JULY A NATIONAL HOLIDAY** in compliment to the French Republic.

By presidential decree of the 23d of June, Dr. Antonio Cueto Vasquez, Secretary of the Commission of Infectious Diseases, was designated to go to the United States to make an **EXHAUSTIVE STUDY OF THE TREATMENT OF INFLUENZA**.

In view of the considerable increase in the foreign colonies of Habana, particularly the Anglo-Saxon colony, and the urgent necessity of having a place where sick residents and transients can be treated with every comfort and convenience, a public subscription has been started to raise a fund of \$300,000 to build and maintain **AN AMERICAN HOSPITAL** provided with all the facilities to care for no less than 50 patients. About the middle of July half of the amount had already been subscribed.

An important **REAL ESTATE TRANSACTION** has just taken place in Habana. The well-known Quinta del Obispo in the heart of the Barrio del Cerro, one of the most picturesque parts of the capital, has been acquired by a group of financiers for the sum of \$1,150,000 and the transfer of two lots to the former owner. The Quinta comprises about 100 acres and was once the summer residence of a Bishop of Habana.

DOMINICAN REPUBLIC.

The communal **CENSUS** of Santo Domingo, taken in April of last year, showed a total of 38,920 inhabitants, of which 26,870 are urban and 12,050 rural. Of this population 38,339 were Catholics, 461 Protestants, and 70 of other denominations.

The **RURAL CENSUS** of the commune of Santiago, taken in compliance with a municipal order of October 18, 1918, shows the following results: Sections of the commune of Santiago, 112; number of inhabited houses, 9,204, and number of inhabitants, 52,266. This population consisted of females, 26,668, and males, 25,598. There were 275 foreigners in the commune and 51,991 natives. The cultivated lands, in tarcas (a tarea is slightly in excess of 628 square meters) were, approximately, as follows: Tobacco, 93,542; cacao, 23,840; coffee, 13,125; sugar cane, 75,557; guinea grass, 261,275;

and small fruits, 91,439. The stock of the commune consisted of beeves, 18,024; horses, 11,057; hogs, 36,075; goats, 20,900; sheep, 1,225; and horses, 8,538. The census shows 47 municipal schools, 10 private schools, and 3,644 matriculates, 3,312 of which were in the municipal schools. The commune had 383 stores, 128 factories, and 39 shops.

ECUADOR.

A presidential decree of June 30 declared A HOLIDAY ON JULY 4, the anniversary of the Independence of the United States.

The municipal council of Quito has decided to give the name of "Avenue of the United States" to the Avenida Vargas, in compliance to the Government and people of the United States.

The consulate at Ecuador in Valencia, Spain, has been abolished by presidential decree, and A CONSULATE ESTABLISHED IN SWITZERLAND AT GENEVA.

By order of the Post Office Department there will be a NEW ISSUE OF 6-CENT STAMPS with the picture of Gen. Ignacio de Veintimillia and 8-cent stamps bearing the likeness of Gen. Eloy Alfaro. There will also be an issue of 5-cent postals with the likeness of Don Juan Montalvo.

The latter part of June the Director of the Astronomical Observatory of Quito visited Riobamba with the object of establishing a METEOROLOGICAL OBSERVATORY in that city.

The Ecuadorean press states that the steamer, *Ecuador*, of the International Navigation Co. of the United States, which left New Orleans June 25, bound for Guayaquil via Panama on the initial trip of the new service established between these ports, arrived with a COMMITTEE OF 92 UNITED STATES TOURISTS headed by the president of the company, Col. William H. Garland. A reception and entertainment committee composed of leading citizens received Col. Garland in Guayaquil, and in Quito the reception committee was headed by the Minister of Foreign Relations, Dr. Augusto Aguirre Aparicio, as honorary president; Dr. Carlos Tobary Borgoño, president; Señor Leopoldo Seminario, vice president; Señor Antonio Sáenz; and Señor Pedro M. Freile, treasurer.

Among the festivities organized for the visitors was a ball given by the Club Pichincha in the Hall of Congress; a picnic in the valley of Los Chillos; a concert in the Teatro Sucre; and a garden party in the Alameda. The Students' Club of the capital named 8 members to serve as interpreters to the party.

The Superior Council of Public Instruction has made a decision to take an inventory of THE DOCUMENTS OF THE NATIONAL LIBRARY to prevent further loss, as some of the most valuable records of the colonial days of the Republic and of more recent events have been lost.

The last of June A MILITARY MUSEUM was officially opened in Quito. It was organized by the Director of the Military School and contains many rare specimens of arms in use during the days of the conquest and the colonies.

GUATEMALA.

Señor Doctor Don J. Antonio Rodríguez has been appointed MINISTER PLENIPOTENTIARY FROM SALVADOR TO GUATEMALA.

A presidential decree provides for the restoration of the MONUMENTS on the Boulevard La Reforma in Guatemala City, erected by the Government and destroyed by the earthquakes.

The former consul from Guatemala in Boston, Señor A. C. García, has been raised to the grade of CONSUL GENERAL FROM GUATEMALA IN BOSTON with jurisdiction throughout the States of Massachusetts, Vermont, Maine, and New Hampshire.

HAITI.

In the last two years the Haitian Department of Public Works has made notable progress in the construction of GOOD ROADS, which will open up rich interior sections to communication with the ports. Early in 1918 the Dartiguenave highway was opened, connecting Port au Prince with Cape Haitien on the north, a distance of 170 miles, and another road, 33 miles long, was completed from the capital to Mirebalais in the interior; a third, running from Port au Prince to the port of Jacmel on the south, was also brought to completion last year. All these roads have been put in condition for motor traffic.

A POSTAL AUTOMOBILE SERVICE has been established between Port au Prince, Petit-Goâve, Grand-Goâve and Miragoâne.

MEXICO.

The Department of the Treasury and Public Debt has given official notice to the press that the National Government will no longer grant EXEMPTIONS OR SPECIAL PRIVILEGES for the protection of industries and that the importation, free of customs, of agricultural implements and industrial machinery, the right to operate specified enterprises for a definite time, and other like tax-free concessions, have been declared null and void by a decree of the President. As a result, in the future, all capital invested in Mexico, and all imported materials and equipment for use in the various industries, will be subject to the taxes imposed by law.

As the means of communication with Lower California are very incomplete a WIRELESS STATION is to be established in the cap-

ital of the southern district. The station will be the most powerful of any in the Republic, and will transmit messages to Mexico City, Progreso, and stations in Japan. Salina Cruz has also begun the construction of a powerful station capable of sending 5,000 miles and will be in communication with like stations in Panama, San Salvador, and Cuba.

As a result of the efforts of the prominent musician and patron of Mexican music, Señor Manuel M. Ponce, a MUSICAL CONGRESS will shortly be held to discuss ways and means to encourage the study of music throughout the country.

The 1st day of June the NATIONAL SUPREME COURT OF JUSTICE commenced a new session. Señor Licenciado Ernesto García Péres was elected president.

At the suggestion of the Director of the Council of Public Health, the President has ordered the establishment of an INSTITUTION FOR THE PREVENTION OF RABIES in the city of Chiapas, of the State of Chiapas.

The Association of Chambers of Commerce of Mexico has received notification from the chamber of commerce of Washington accepting the invitation to send delegates to the CONGRESS OF THE CHAMBERS OF COMMERCE OF MEXICO which will take place in Mexico City during the month of September.

The city council of Mexico City has granted permission to a theater manager to build a STADIUM OR ATHLETIC FIELD like those in Europe for games and athletics. The plans call for the construction of a large field, in the center of which will be a baseball diamond, then three concentric race tracks, the first for horse races, the second for bicycles, and the third and largest for automobiles. The amphitheater for the public, the judges' stands, and first-aid stations will be constructed where they will command a view of the whole field.

NICARAGUA.

About the middle of June last a TUBERCULOSIS WARD of the General Hospital in Managua was opened to public service. This ward bears the name of the Cabrera ward in honor of the local physician who donated the money for the construction and maintenance of same.

Press reports state that toward the end of June of the present year, Dr. Gregorio C. Leal, commissioned by the Mexican Government to found an ANTIHYDROPHOBIA INSTITUTE in Managua, similar to the ones now in operation in Mexico, arrived in the National Capital.

The National Government has taken preliminary steps for the erection and equipment of powerful WIRELESS STATIONS at

Bluefields and Cape Gracias a Dios, to be used particularly for the transmission of Government business.

Gen. Fernando Elizondo has been appointed CONSUL GENERAL of Nicaragua in New York to take the place of Fernando Solórzano, resigned.

In conformity with article 1 of the law of March 27, 1915, the President of the Republic has organized a SUPERIOR BOARD OF PUBLIC HEALTH for the eastern and southern part of the country. This board is composed of members of the faculties of medicine, surgery, and pharmacy of Granada. Dr. José Martínez is chairman.

For the purpose of strengthening the relations between Guatemala and Nicaragua, the President of Guatemala proposes to establish a PERMANENT LEGATION in Managua. The first minister is to be Dr. Francisco Torres Fuentes.

As a SANITARY MEASURE in Managua the Nicaraguan Railway will sell crude oil to the public for disinfection purposes at 10 cents a gallon.

The Nicaraguan press announces the publication of a BULLETIN OF STATISTICS No. 26, which contains detailed data concerning the Department of Rivas. This Bulletin is the official organ of the Department of Home Government.

The National Government has purchased in Baltimore one of the most modern LINOTYPE machines manufactured, and will use same in the Government printing office at Managua.

In accordance with a recommendation of the War Department, Dr. Rodolfo Espinosa proposes to establish a MODERN SANITARIUM in the National Capital. Funds have been made available for this purpose.

In 1917 POSTAL PARCELS were imported into the Republic to the number of 10,590.

Official data show that the length of the TELEGRAPH system of Nicaragua is 4,547 kilometers, and that there are 115 telegraph offices in operation. There are 1,886 kilometers of telephone wires and 91 employees of that service in the Republic.

PANAMA.

The President has appointed a committee of influential citizens and newspaper men to prepare a program for the FOUR HUNDREDTH ANNIVERSARY OF THE FOUNDING OF THE CITY OF PANAMA on the 15th of August. It is said that Panama is the oldest European settlement in the New World. The date of the founding of Panama is also the fifth anniversary of the opening of the Panama Canal.

On July 10 of the present year a new rate on TELEGRAPH AND TELEPHONE MESSAGES transmitted by Government lines became effective.

PERU.

By presidential decree of July 1, the 4th and 14th of July were declared NATIONAL HOLIDAYS in honor, respectively, of the United States and the French Republic, and to celebrate the signing of the peace treaty at Versailles.

On the 2d of June the President issued a decree determining the REQUIREMENTS FOR THE ENTRY OF ALIENS INTO THE REPUBLIC, so that in the future anarchist agitators may be excluded from the nation. Aliens desiring to enter Peruvian ports must be provided with individual passports bearing the personal description, photograph, and signature of the bearer properly accredited by the legation; aliens lacking these requirements will be refused entry to the Republic.

In order to combat anarchistic propaganda a new branch has been added to the National Police Department called VIGILANCE COMMITTEE. This section will pursue investigations of anarchistic propaganda and its sources, and also have charge of the entrance and admission to the country of foreigners.

SALVADOR.

On the suggestion of the president of the Society of Public Welfare a decree was issued by the President of the Republic which provides that the first Sunday in May of each year shall be observed as "CHARITY DAY" throughout the Republic. The funds collected on this occasion will be turned into the treasury of the Society of Public Welfare for the use of the institution.

The REORGANIZATION OF THE MILITARY FORCES has been ordered by the Government. All citizens from the ages of 18 to 50 are ordered to present themselves before their city officials to enroll in the military census.

A new division known as the BUREAU OF GENERAL ADMINISTRATION OF THE ARMY has been added to the general staff. The new bureau will have under it the three districts of San Salvador, Santa Ana, and San Miguel.

A NEW MAGAZINE entitled "Cuscatlania," published by Señors M. A. Herrera and Daniel Córdón, has appeared in Santa Tecla.

Señor Angel Guirola has been appointed a MEMBER OF THE PAN AMERICAN FINANCIAL HIGH COMMISSION (Salvadorean section) to fill the vacancy left by the death of the late Don Rafael Guirola Duke.

The presidential decree of the 21st of May REGULATING THE MILITARY SERVICE provides for the establishment of military commands in the various cities and cantons of the Republic.

The construction of a modern building has been ordered in San Salvador for POLICE HEADQUARTERS and the Reform School for Minors.

On the 31st of May the Society of Public Welfare held a meeting to install in office their new president, Señor Don Miguel Dueñas. Señor Dueñas has begun the development of A LABORERS' DISTRICT WARD, where there will be comfortable housing, grounds, and a gift of money to attract the laboring class.

The American Red Cross a short time ago sent to the Salvadorean Red Cross 200 TENTS for the use of the sufferers from the earthquake, which occurred a short time ago.

The newly appointed SALVADOREAN CONSULS to Honduras are as follows: To Amapala, Dr. Arturo Zalaya; to Nacaome, Señor Alfredo Foster; to Coluteca, Señor Carlos J. Pinel.

AN ANTIALCOHOLIC LEAGUE was formed the middle of June in the city of San Miguel to combat alcoholism by every possible means. Many influential persons are members.

The National Congress authorized the Directing Council of the Salvadorean Labor Union to make an agreement with the Confederation of Laborers of El Salvador to develop a joint social program in order to UNIFY THE AIMS OF THE LABOR UNIONS with the end of their eventual consolidation.

URUGUAY.

A presidential decree of the 9th of May approves the adoption of an ordinance by the National Board of Health relating to QUARANTINE INSPECTIONS OF INCOMING VESSELS in Montevideo. This ordinance states that all ships from the high seas calling at the port of Montevideo to load or unload shall be visited by the health officer after having approached the inner harbor and anchored in the outer harbor. Vessels in transit, or when so ordered, may receive the health officer in the roadstead i. e., the area between the line passing through Punta Brava and Punta de Yeguas and the coast.

From the 1st of January to the 1st of March of the present year 576 SHIPS CALLED AT THE PORT OF MONTEVIDEO having a total tonnage of 1,493,056. Of these 517 were steamers with a tonnage of 1,457,161 and 59 sailing vessels with a tonnage of 35,895.

In the same period THE MOVEMENT OF PASSENGERS through this port showed 46,171 entries, and 42,757 departures, making a difference of 3,414 in favor of the population.

The RESOLUTIONS OF RESPECT TO THE LATE MEXICAN MINISTER TO URUGUAY, Amado Nervo, adopted by Congress

on the 23d of May, were published in full by the *Diario Oficial* under date of July 4th.

The National Congress passed a law on the 14th of May of the present year changing the name of the hamlet in the Department of Florida, formerly known as "Fray Marcos" to PUEBLO.

THE AERO CLUB OF URUGUAY has been incorporated in accordance with the provisions of the Civil Code.

VENEZUELA.

A Presidential decree of June 13th authorized the construction of the SEWER SYSTEM OF CARACAS in accordance with the plans approved by the Department of Public Works. The installation of this thoroughly scientific sewer system will not only make a modern city of Caracas, but will greatly improve the sanitary conditions.

On the 26th of June the President issued a decree declaring the 6th and 7th of August to be National Holidays. The 7th of August was the centennial of the Battle of Boyacá, the beginning of the campaign which liberated the five following nations: Colombia, Venezuela, Ecuador, Peru, and Bolivia.

The National Government has given the Department of Public Works permission to proceed with the work of enlarging the ASTRONOMICAL AND METEOROLOGICAL OBSERVATORY OF CARACAS, in order to have a suitable place for the installation of the equatorial telescope presented to the Government for the Department of Public Instruction, by Lord Boulton.

The municipal council of the Federal District recently passed an ordinance providing for STREET CLEANING AND SANITARY MEASURES for the capital city.

In the city of Maracaibo an antialcoholic LEAGUE has been formed to prevent the use of alcoholic beverages.

On the 4th of June Venezuela celebrated the centennial of the well-known savant and public educator, Dr. Caracciolo Parra, several times dean of the University of Mérida. The Parra family has presented the University with the Dean's portrait done in oil by the well-known Venezuelan artist Tito Salas.

The municipal council on July 4th passed an ordinance relating to REQUIREMENTS FOR THE BUILDING OF MOVING-PICTURE THEATERS and the measures for protecting the public health and safety of the audience.



BOOK NOTES

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ARGENTINE REPUBLIC.

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- L'Argentine en 1913. José Souweine, Liège, 1913. no imprint. [14] p. 8°.
- Conferencia sobre el censo. [Por] Guillermo Stock. Buenos Aires, E. Lantés, editor, 1914. 16 p. 8°.
- Constitución y reglamento interno. Legiones juveniles de templanza. Buenos Aires, Imprenta de José Tragant, 1918. 30 p. 12°.
- Discurso por A. C. Sangiovanni. (Liga nacional de Templanza de la República Argentina.) Buenos Aires, Tip. Ortelli Hnos., 1917. 3 p. 12°.
- Documentos y actos de gobierno relativos a la guerra en Europa. Ministerio de Relaciones Exteriores y Culto. Buenos Aires, Estab. Gráfico Enrique L. Frigerio, 1919. 145, ii p. 8°.
- Fragmentos de una vida. [Por] Guillermo Stock. Buenos Aires, E. Lantés, editor, 1910. 249 (4) p. 12°.
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- Introducción al estudio de la historia. [Por] Guillermo Stock. Buenos Aires, Editor: El Autor, 1917. 39 p. 12°. Cover title.
- The Italian factor in the race stock of Argentina. [By] Robert F. Foerster. Reprinted from Quarterly Publications of the American Statistical Association, June, 1919. p. 347-360. 8°.
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- El regreso del bosque. (Carte de actualidad a Emilio Berisso.) [Por] Guillermo Stock. Buenos Aires, Editor: El Autor, 1915. 15 p. 8°.
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- El trabajo femenino. Monografía premiada con diploma y medalla de plata en la sección económica social en la exposición de Gante, Bélgica, celebrada en 1913. Buenos Aires, Tall. Gráf. L. J. Rosso y Cía., 1916. 30 p. 8°.
- Trazos selectos en prosa y verso. Buenos Aires, "Liga Nacional de Templanza," 1918. 132 p. 8°.

BOLIVIA.

[This collection was donated to the Columbus Memorial Library by Srs. González y Medina, publishers, La Paz, Bolivia.]

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- An enumeration of the plants collected in Bolivia by Miguel Bang, with description of new genera and species. By Henry H. Rushby. Part 3. (Memoirs of Torrey Botanical Club, Vol. 6, No. 1, issued November 17, 1896.) 130 p. 8°.
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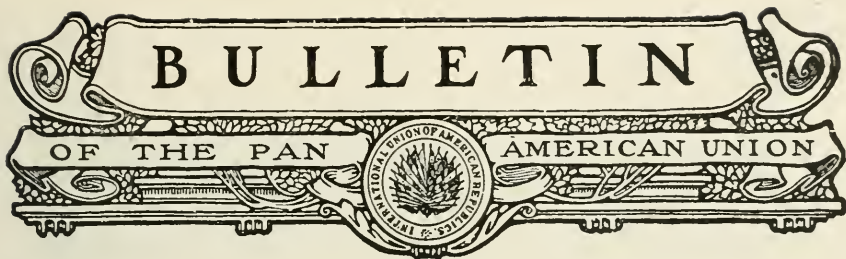
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FALLS OF JUANACATLÁN, STATE OF JALISCO, MEXICO.



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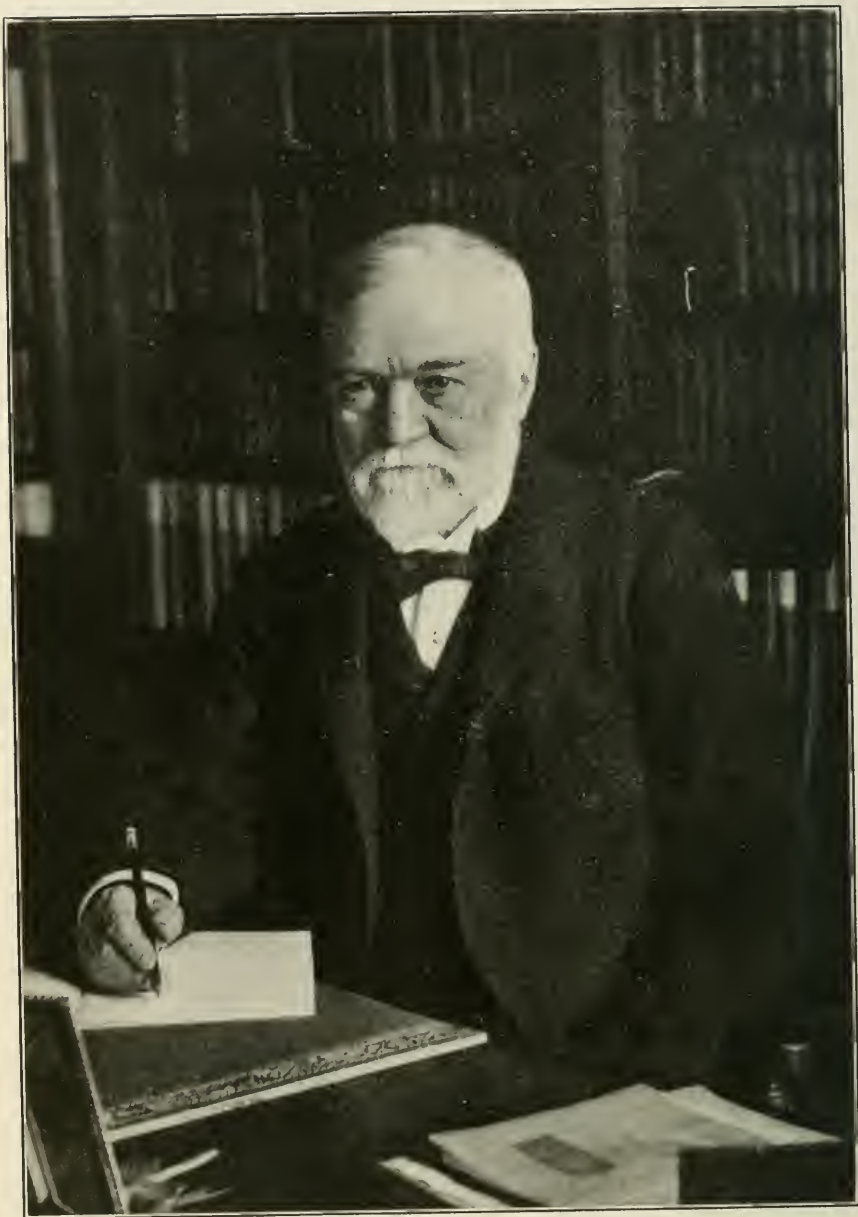
No. 3

ANDREW CARNEGIE: THE WORLD'S GREATEST PHI- LANTHROPIST

ANDREW CARNEGIE, steel magnate and philanthropist, died at his summer home at Lenox, Mass., on August 11, 1919, at the age of 84. His life for the past 20 years had been devoted practically entirely to the task of giving away the millions which he accumulated in his early life. He only partially succeeded, however, for he died leaving a fortune of immense proportions.

Mr. Carnegie was born at Dunfermline, Scotland, on November 25, 1835. His parents were poor. When Andrew was but 12 years old, his father with his wife and another son emigrated to America and went to Pittsburgh, Pa., where Mrs. Carnegie had two sisters living. Mrs. Carnegie is said to have been more responsible for the change of residence than her husband. She was a remarkable woman, of strong character and superior intellect, and it seems to be from her that Andrew inherited the qualities that not only made him an exceptional business success but also beloved by his fellow men.

A few weeks after their arrival Andrew got a job as a bobbin boy in a woolen factory in Alleghany. The next year, 1850, he became a messenger boy for the Western Union Telegraph Co. and delivered telegrams around the city of Pittsburgh. In 1852 he had become an operator and soon earned a salary of \$50 a month. In 1853 he went into the service of the Pennsylvania Railroad Co. In 1854 he made his first investment, buying with his savings 10 shares of the stock of the Adams Express Co. A few years later, with his brother, he started a small foundry.



MR. ANDREW CARNEGIE.

At the age of 30 Carnegie invested in oil and bought a vast tract of oil land. In a year, much to the surprise of all the investors, the venture paid the astonishing dividend of \$1,000,000 upon a capital of \$40,000.

But steel and iron were the bases of Carnegie's immense fortune. The railroads were then experimenting with cast-iron bridges and Carnegie foresaw the demand for a factory that would turn out the iron parts and he formed the Keystone Bridge Corporation, which did a successful business. He then began to see that iron rails must give way for those made of steel. On a visit to England in 1868 he became familiar with the Bessemer process of making steel and on his return introduced it in his mills.

Such was the romance of his success that the poor immigrant boy of 1848 became some 40 years later the world's leading steel producer. Many square miles of his mills surround Pittsburgh. He established steamship and railroad lines to bring his ore to him, and he boasted of the reduction in price of steel rails from \$95 a ton to \$26.

In 1901 a syndicate headed by J. P. Morgan, desiring to form the billion-dollar United States Steel Corporation, paid \$420,000,000 in its 5 per cent bonds for the Carnegie company's holdings. Carnegie's personal share in this transaction was \$250,000,000. His first actual investment in iron, 36 years before, was \$1,500 of borrowed money.

In 1888 Andrew Carnegie married Louise Whitefield, of New York, and one child, a daughter, was born in 1897.

In 1901, after the sale of the steel company's holdings, Carnegie began what might be called the second phase of his life. He turned away from money making and resolved to give away his enormous fortune. He believed that millions accumulated, according to his own modest statement, by employing better men than himself were not all his. He held it "disgraceful" for a man to keep on gathering millions and he launched a philanthropic campaign of unprecedented dimensions.

Carnegie, although his benefactions were for a variety of causes, is known most widely as a giver of libraries. He himself had a magnificent library and was a lover of books. Some of the books written by himself are: *An American Four-in-Hand in Great Britain*, *Around the World*, *Triumphant Democracy*, *The Gospel of Wealth*, *The Empire of Business*, *The Life of James Watt*, and *Problems of To-Day*. Mr. Carnegie gave \$60,364,808 for the establishment of free public libraries. These were not located in the United States alone, but "Carnegie Libraries" are to be found in several of the islands of the West Indies as well as in some European countries.



THE PAN AMERICAN UNION BUILDING, WASHINGTON, D. C.

The erection of this building was made possible by a gift of \$750,000 by Andrew Carnegie in 1907. He later gave an additional \$100,000 for the improvement of the grounds.

Quite as well known as his gifts for libraries are his efforts and gifts for the preservation of international peace. His interest in the Pan American cause was shown from the time of the first Pan American Conference in 1890, of which he was a member, until the time of his death. It was in 1907, at the suggestion of the Governing Board of the Pan American Union, that Mr. Carnegie gave \$750,000 for the erection of a building as a home for the Bureau of American Republics and later gave \$100,000 for the improvement of the buildings and grounds. This gift with the amounts appropriated by the 21 countries composing the Pan American Union, made possible the erection of the beautiful building at Seventeenth and B Streets in Washington, D. C.

On April 26, 1910, at the dedication of the Pan American Building it was the privilege of the assemblage to hear an address from the giver, Mr. Carnegie. His devotion to his mission of establishing international peace may be understood by the conclusion of his address, as follows:

The crime of war is inherent—it gives victory not to the nation that is right but to that which is strong. As I speak there comes to me a new poem, *The New Age*. I quote two verses:

“When navies are forgotten
And fleets are useless things,
When the dove shall warm her bosom
Beneath the eagle’s wings,
When memory of battles
At last is strange and old,

“When nations have one banner
And creeds have found one fold,
Then hate’s last note of discord
In all God’s worlds shall cease
In the conquest which is service,
In the victory which is peace.”

With the words of Washington, the father of our country, in my heart: “My first wish is to see the plague of mankind, war, banished from the earth.” I now join in dedicating this building of the Bureau of American Republics to the highest of all its missions, the abolition of the crime of killing man by man as a means of settling international disputes.

At the Fourth Pan American Conference the following resolution was adopted, awarding Andrew Carnegie a gold medal as a token of the high esteem felt for his work for the Pan American cause by the conference:

The Fourth International American Conference, assembled at Buenos Aires, resolves:
First. The Fourth International American Conference declares that Mr. Carnegie deserves the gratitude of the American Republics.

Second. The Union of the American Republics, on behalf of the Governments therein represented, shall have a gold medal struck bearing these inscriptions in



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PAN AMERICAN GOLD MEDAL, EXACT SIZE.

The medal, designed by Mrs. Sally James Farnham, was cast and made by Tiffany & Co., of New York. It was awarded Mr. Carnegie at the Fourth Pan American Congress held at Buenos Aires in 1910.

English: On the obverse "The American Republics to Andrew Carnegie," and on the reverse, "Benefactor of Humanity."

Third. That the medal referred to in article 2 hereof, together with a copy of this resolution and the documents thereto relating, shall be presented to Mr. Andrew Carnegie at a special meeting of the Governing Board of the Union.

The presentation of the medal was made on May 5, 1911, at the Pan American Union Building. The audience, which overflowed the Hall of the Americas, was composed of the members of the Diplomatic Corps, Supreme Court judges, Cabinet officers, Senators and Congressmen, and other officials. Addresses were made by President Taft, the Secretary of State, the Mexican ambassador, and Mr. Carnegie.

An interesting coincidence of Mr. Carnegie's connection with Pan Americanism occurred on May 12, 1913. He happened to be in Washington on that day and called at the Pan American Building during a meeting of the Governing Board. Word was sent to the chairman and Mr. Carnegie was invited to join the meeting and take a seat at the board table. He accepted and made a few appropriate remarks in which he emphasized how profoundly impressed he was with the fact that around this table gathered regularly the plenipotentiaries of the 21 Republics of the Western Hemisphere, all working for the welfare of each and all and for the development of peace and friendship among them.

In 1908 Mr. Carnegie gave \$100,000 for a building at Cartago, Costa Rica, to be occupied by the Central American Court of Justice. This building housed the first international court on the Western Hemisphere established for the purpose of considering, without recourse to arms, all questions arising among some of the nations composing it. In 1911, Mr. Carnegie authorized the Costa Rican Government to draw on him for \$100,000 for the construction of another building for the Central American Court of Justice to be erected at San Jose; the first building, mentioned above, having been destroyed by an earthquake.

Mr. Carnegie's efforts for international peace, however, did not stop with Pan America. He gave \$1,500,000 for the erection of the Hague Peace Palace and \$10,000,000 for the Carnegie Endowment for International Peace. The object of the Carnegie Endowment for International Peace is, to quote Mr. Carnegie, "to hasten the abolition of international war, the foulest blot upon our civilization." This endowment has been active among all nations diffusing knowledge of international law, economics, and history among them. Another endowment is the Carnegie Institute of Washington founded in 1902, with an endowment of \$10,000,000, to which later was added \$2,000,000.

Following is a summary of Mr. Carnegie's benefactions:

For 2,811 free public libraries.....	\$60,364,808
To colleges for library and other buildings, endowments, and other purposes.....	20,363,010
To the Carnegie Foundation for Advancement of Teaching.....	29,250,000
To the Carnegie Institute and the Carnegie Institution of Technology...	26,719,380
To the Carnegie Institution of Washington.....	22,300,000
To Carnegie Hero Funds.....	10,540,000
To the Carnegie Endowment for International Peace.....	10,000,000

Among other gifts and grants are:

Carnegie Corporation of New York.....	125,000,000
Church organs (7,689).....	6,248,309
Scottish Universities Trust.....	10,000,000
United Kingdom Trust.....	10,000,000
Steel workers' pensions.....	4,000,000
Dunfermline Trust.....	3,750,000
Church Peace Union.....	2,025,000
Hague Peace Palace.....	1,500,000
Pan American Union.....	850,000
Central American Peace Palace.....	200,000
Red Cross.....	1,500,000

Mr. Carnegie was deeply affected by the World War and grieving over this is believed to have hastened his death. His mind and soul had been so engrossed in his efforts for international peace that the great World War weighed heavily upon him. He died after a brief illness, and his interment took place at Sleepy Hollow Cemetery, Tarrytown, N. Y.



MR. CARNEGIE'S INTEREST IN THE PAN AMERICAN UNION¹

IN considering what would be most appropriate for me to write about Mr. Carnegie for publication in the BULLETIN, I find it difficult to select any particular recollection of him which stands out more than any other. He always manifested such interest in the work and purposes of the Pan American Union and its beautiful buildings and grounds, which were made possible by his generosity, that it would be a long story to describe numerous incidents which demonstrated his sincerity of cooperation.

I shall never forget the first talk I had with him after Elihu Root, then Secretary of State of the United States and Ex Officio Chairman of the Governing Board of the Pan American Union, had received Mr. Carnegie's assurance that he would be glad to provide the funds for the construction of a home for the Pan American Union, provided his tender of such help was agreeable to the Governments of the American Republics.

Following my service as United States minister in Argentina, Panama, and Colombia, I had just been elected Director General of the Pan American Union by the unanimous vote of its Governing Board, which is composed of the Latin American diplomatic representatives in Washington and the Secretary of State of the United States. The chief responsibility upon me was, under the direction of this Board, to reorganize and build up the Pan American Union, then known as the Bureau of American Republics, into a great practical and powerful international organization for the development of good understanding, intercourse, commerce, and lasting friendship and peace among the 21 American nations.

At that time the offices were in a building in Washington that previously had been a private house, on the corner of La Fayette Square and Pennsylvania Avenue, diagonally across from the White House and now occupied by the Carnegie Endowment for International Peace. These quarters were entirely inadequate for the work of the Pan American Union and did not possess the facilities which

¹ By John Barrett, Director General of the Pan American Union.



TWO OF CARNEGIE'S GIFTS TO THE CITY OF WASHINGTON.

Upper picture: The Carnegie Institution. This building cost \$307,870, and was completed and opened to the public December 13, 1909. Lower picture: Public Library. This library was erected at a cost of \$350,000 given by Mr. Carnegie in 1903.

were needed for the office of an international organization of this character. I realized, moreover, that a noble home for it would be a mighty influence in calling attention to the practical value of Pan Americanism and in emphasizing the meaning of Pan American cooperation for peace and trade.

It therefore was a source of most profound satisfaction to me that Mr. Carnegie made his gift, amounting in all to \$850,000, which enabled the Pan American Union to construct the buildings and ornament the grounds now located on Seventeenth Street between B and C Streets at the entrance of Potomac Park, which are admired by visitors from all parts of the world and which house a staff and facilities that have been and are great factors in promoting the peace, prosperity, and welfare of the Western Hemisphere.

Just before it was known that Mr. Carnegie was going to make this gift President Roosevelt had told me that, if I preferred a diplomatic promotion after the service I had tried to render in such difficult places as Panama and Colombia just after the revolution on the Isthmus, he would give me the opportunity of going as Ambassador to a certain European country, subject, he said, of course, to Mr. Root's approval. Of course I was greatly impressed with this opportunity, but I informed the President that, in view of the interest Mr. Root was taking in the organization of the Pan American Union, it would not be fair for me to desert him. Although the President and I both agreed that this offer to me should be regarded as confidential, and he remarked that he had not even spoken to Mr. Root about it, he must have mentioned it to some Senator, for a report appeared in the papers that a Senator had said that I might be appointed ambassador to some European country.

Mr. Carnegie saw or heard of this report and sent for me. When I walked into his little study in his beautiful New York home, he greeted me cordially and at once said, "Look here, Barrett, are you going to stand by the Bureau of American Republics, with all the hard constructive work that means, or are you going to Europe to have a splendid time socially but be merely the spokesman of the State Department?" He did not wait for me to make any answer but went on to point out a situation that is the reason for my relating this incident. He continued, "Don't you for a moment be tempted to go as ambassador to Europe when you have this Pan American opportunity. The world is entering upon a mighty new era, and in a few years we are going to see the end of wars. I fear (and he hesitated for some moments, throwing his head back with that mannerism always characteristic of him) that we are going to have one more great war. I abhor the thought, but I think it will be a world war into which the United States and other American Republics

will surely be drawn. Out of it, though the price will be fearful, we are going to get what I believe will be permanent peace, but this can only be accomplished by the cooperation and participation of the United States and its sister Republics. We must, therefore, do everything in our power to develop American solidarity through ties of both friendship and trade. It is because I believe that this organization can be a tremendous factor in promoting the peace and welfare of the Western Hemisphere, and therefore set an example to all the world, that I have gladly made a contribution for a suitable building that shall be its permanent home. Some day we are going to have a world league of nations that will prevent wars among men, but in



HERO MEDAL ESTABLISHED BY MR. CARNEGIE.

This medal is given to those who risk their lives in an attempt to save the lives of others. The hero fund is given by Mr. Carnegie to the people of the United States, Canada, and Newfoundland. The coat of arms of each of these countries appears on one side of the medal and the bust of Andrew Carnegie on the other.

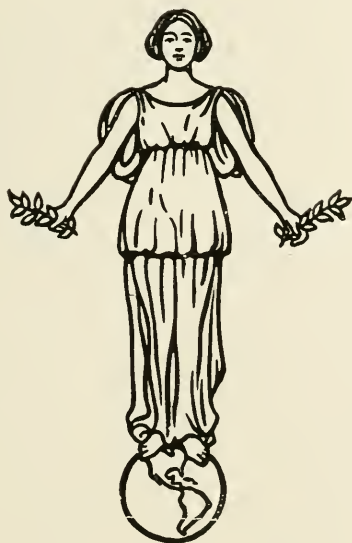
this organization we already have a Pan American league of nations. Let us, therefore, build it up through the influence of both deeds and beauty. I will give the money to provide the beauty and nobility of environment, and you will direct the work or deeds that will get the results.

"What I have told you may seem somewhat optimistic, but I believe that I am right, and no gift that I have ever made gives me more satisfaction than this one. May the Pan American Building become, in fact, a "Temple of Peace" and may it always contribute to that peace by exercising an influence which will ever tend to prevent war between any of the 21 American Republics. If this building

will serve such a purpose I will be repaid a hundred times. Now, then, are you going as ambassador or will you stick by the Bureau?"

Without a moment's hesitation I replied that, under the influence of such practical and inspiring words as these, there was no question whatever as to my attitude, and that if he felt so strongly on the possibilities of Pan Americanism and could contribute so generously for its new home, it certainly would be most selfish for me to select the great honor and possible pleasure of an ambassadorship in preference to the less distinguished but more practical position of being the executive officer of this international organization.

There can be no better proof of Mr. Carnegie's wisdom or any nobler monument to his memory than, respectively, the fact that since that building was erected there has been no war between any two American Republics, and that to-day it is known in the four corners of the globe as one of the most beautiful, appropriate, and practical public buildings of the world.



RAILWAY COMMUNICATION BETWEEN PERU AND THE ARGENTINE REPUBLIC¹

IN the October, 1918, number of the Bulletin of the Pan American Union, I read an interesting article on a journey which can now be made by rail between the Peruvian and Brazilian coasts in which a slight reference was made to direct communication by land between Lima and Buenos Aires. The fact that I have at various times traveled from one to the other of these capitals, places me in a position to give some useful information on this subject which I consider of great importance to the future development of the continent. In proof of this last statement I will use the words of Señor Francisco García Calderón, a noted Peruvian writer, and, at the present time, minister of that country in Belgium, who says in one of his books:

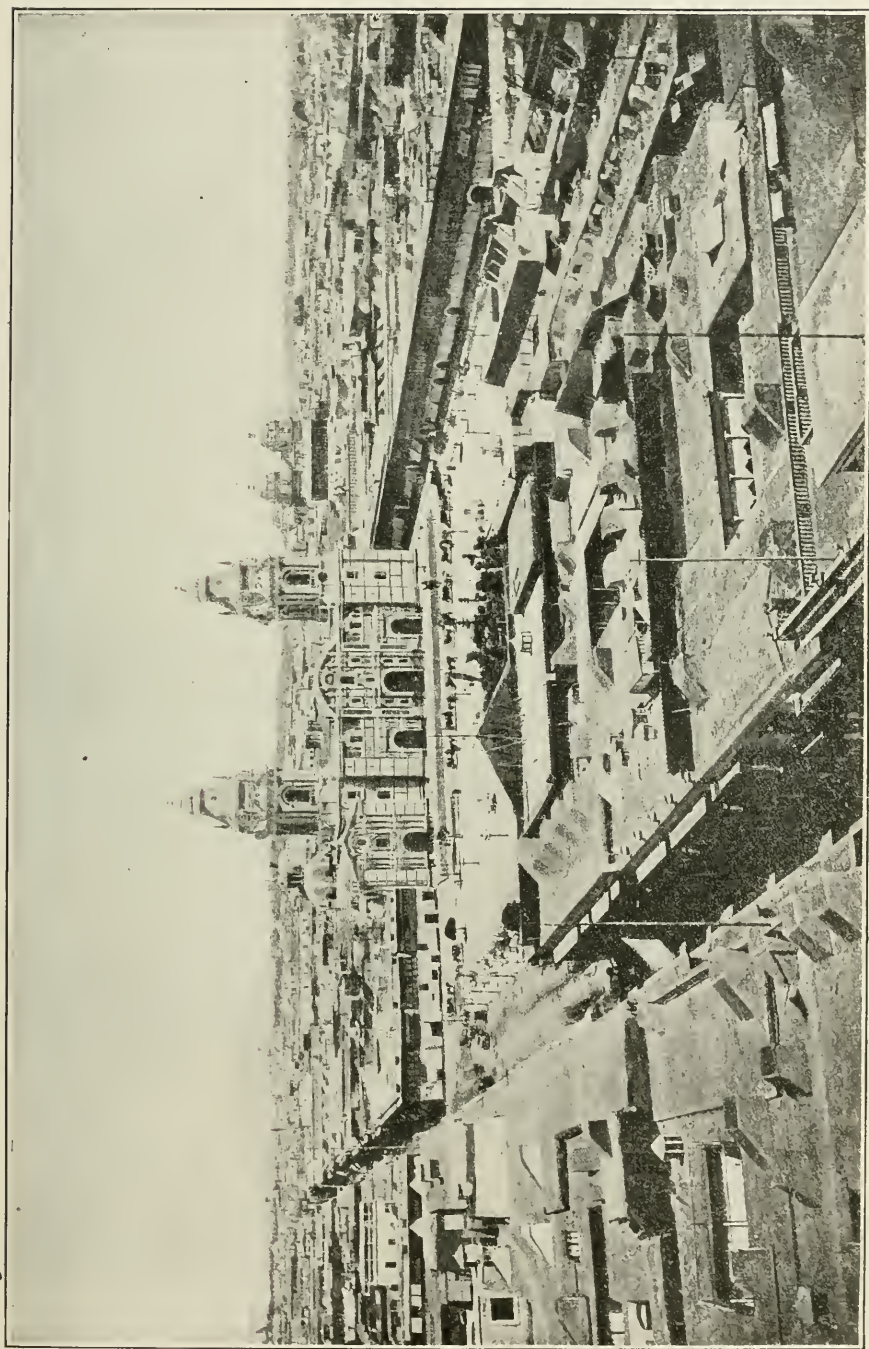
This railway has reached the Bolivian frontier and in five years more will probably be completed. Peru has extended the Callao-Oroya line to Cerro de Pasco and will continue it to Huancayo. On the other hand, the railway from Cuzco to Puno, the latter a Peruvian port on Lake Titicaca which separates Bolivia from Peru, is almost finished. There are, then, two missing links in the continuous route of the great project, namely, the connecting of Huancayo with Cuzco, both of which places are terminals of two great railways, and the union of Puno with La Paz by a road skirting the shores of Lake Titicaca. Due to the interests of the three great countries under consideration the cities of Lima and Buenos Aires, one on the Pacific and the other on the Atlantic, will undoubtedly become terminal points that will control eastern and European influence, stimulate by their action the heart of America and prepare for the future great currents of sympathy and of power that will stabilize the development of the American continents.

And so, in accordance with Señor García Calderón, and other diplomats and statesmen of Peru, Bolivia, and Argentina, engineers and business men have also expressed their opinion of the importance of a railway system which will unite the three countries.

The last section of the Pan American Railway, between Oroya, Peru, and Buenos Aires, represents a distance of 4,200 kilometers.

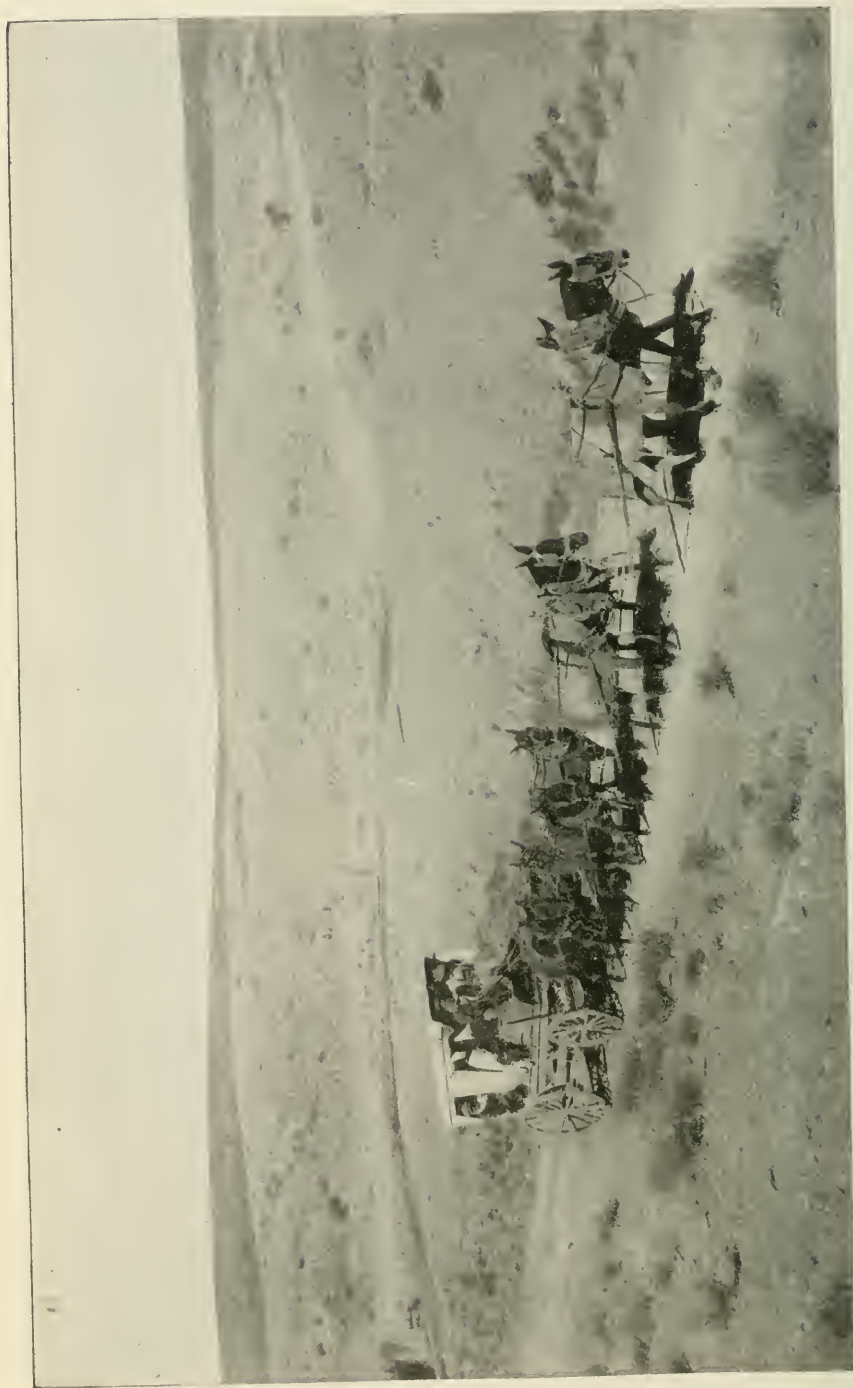
Oroya is 130 kilometers to the south of Cerro de Pasco, the latter a mining zone now worked by a large American company which ships 50,000 tons of copper annually. In Cerro de Pasco there is a smelter with a daily capacity of 1,500 tons of ore. A smelter, however, is to

¹ English version of article by Señor Don Ricardo Tizon i Bueno, of Lima, Peru, prepared for the Spanish edition of the *Bulletin*.



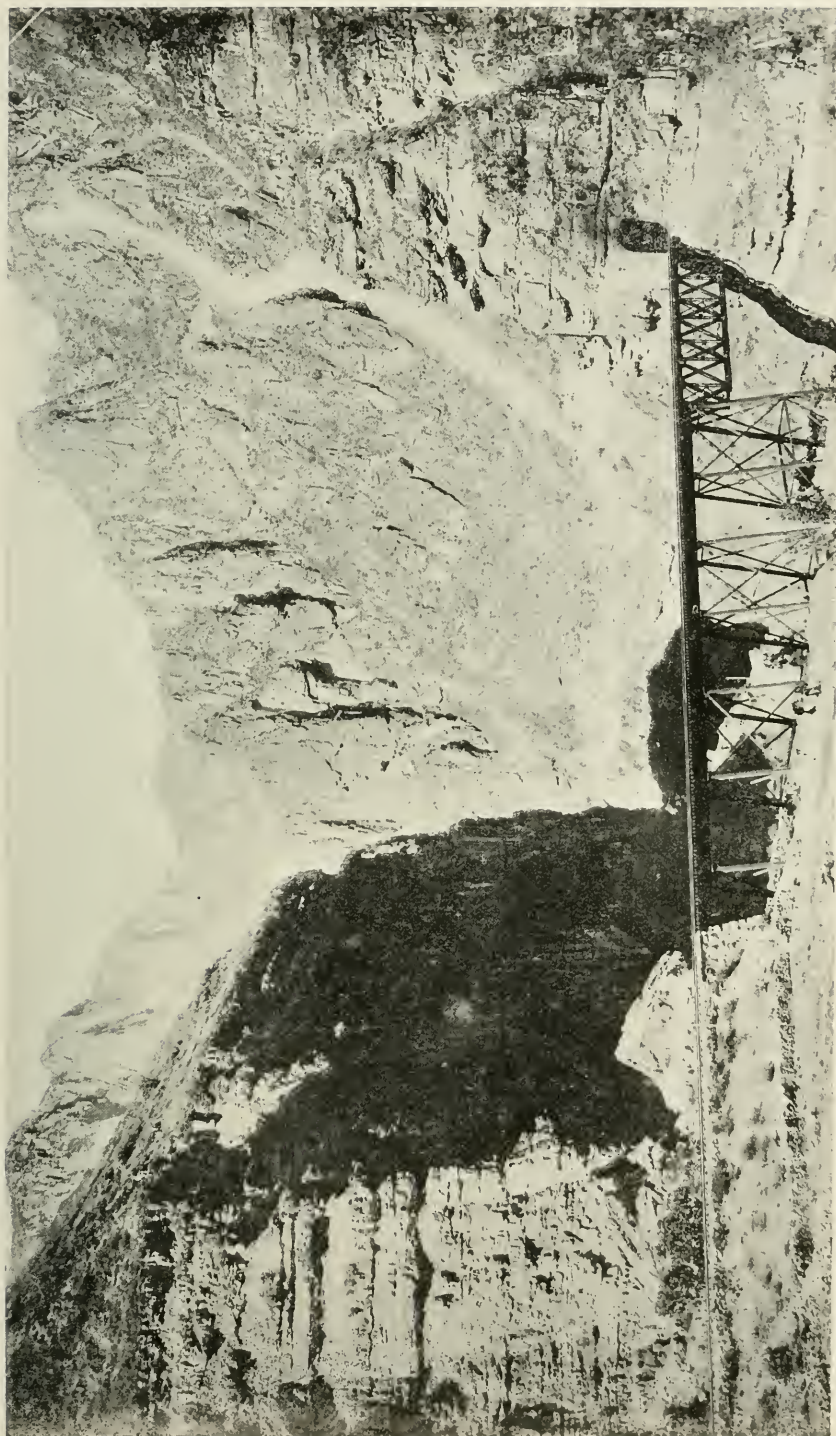
GENERAL VIEW OF LIMA, PERU.

When Lima and Buenos Aires are ultimately connected by rail the intervening territory will undoubtedly enter upon a period of prosperity. The markets of Peru, Bolivia, and Argentina will become available to each other and to the world.



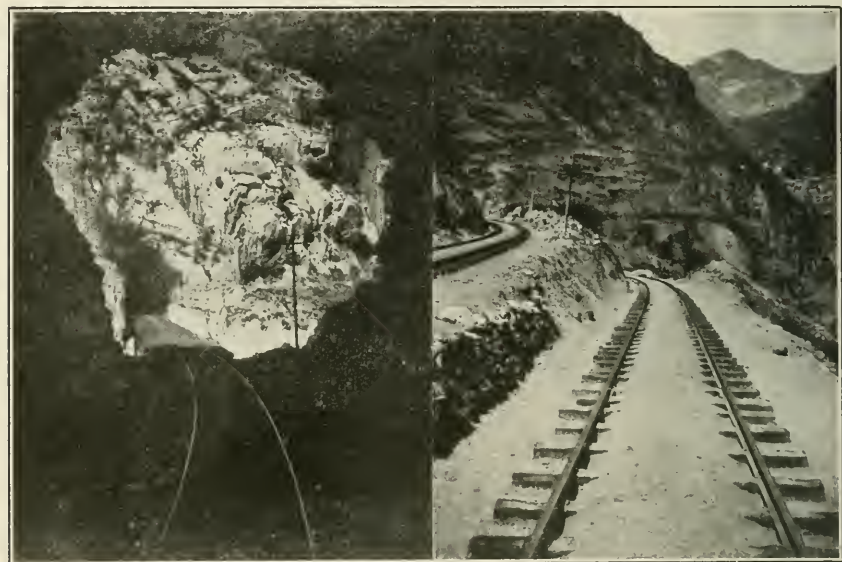
OLD METHOD OF TRAVEL ON THE TUPIZA-LA QUIACA ROUTE.

A few years ago the mule-drawn coach was in use. This distance, about 200 kilometers, is now covered in comfortable automobiles and will soon be traversed by the railway now under construction.



ANDEAN RAILROAD COUNTRY.

It is easy to see what difficulties stand in the way of connecting Peru, Bolivia, and Argentina by rail. The above scene is on the Oroya Railroad and is about half a day's journey from Lima.



SCENES ON THE OROYA RAILROAD.

From Oroya a railway runs north to Cerro de Paseo. Another runs west to Lima and Callao and a third south to Huancayo. Oroya is at an altitude of 3,710 meters above sea level. Upper picture: Mountain region near Oroya. Center: One of the numerous tunnels: A series of switchbacks enabling the train to gain grade. Bottom: A llama train in an Andean village.



GORGE NEAR TUPIZA, BOLIVIA.

The railroad now in process of construction between Tupiza, Bolivia, and La Quiaca, Argentina, will probably pass through this gorge.

be established at Oroya with three times that capacity. In the last-named place there is a powerful hydroelectric installation which furnishes power to the plants in Cerro de Pasco. From Oroya, which is at an altitude of 3,740 meters above the level of the sea, a railway runs north to Cerro de Pasco. From the same point, in a westernly direction, the Central Railway, which is one of the most daring constructions in the world, runs to Lima, capital of Peru, and to Callao, the Pacific port. This road has a length of 220 kilometers. Another railway runs from Oroya southward 130 kilometers to Huancayo, which is also in the Andine region.

We have, therefore, the first section, Callao to Lima, and Oroya to Huancayo, a distance of 350 kilometers.

The second section, between Huancayo and Cuzco, which is also naturally a section of the Pan American Railroad, is now under construction, but some time will be required in which to complete it due to the great difficulties caused by the broken country through which it passes.

The American engineers, who in 1891 studied the intercontinental line between Mexico and Argentina, made clear the enormous construction obstacles to be overcome in this section, and estimated that the cost of building the 810 kilometers of the line would, on an average, exceed \$42,000 per kilometer.

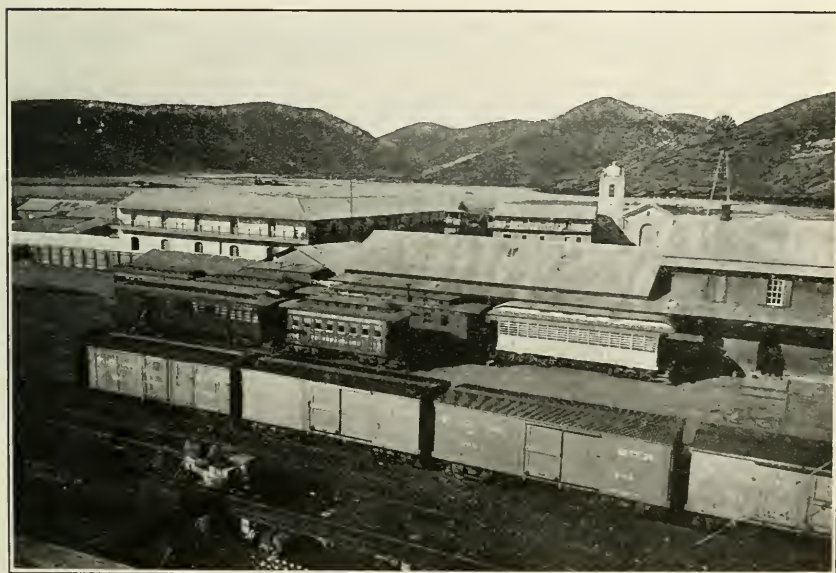
Cuzco, the imperial city of the Incas, situated 3,355 meters above the level of the sea, is connected by rail with Puno, a port on Lake Titicaca, a distance of 393 kilometers. At Juliaca, before reaching Puno, a branch line, 447 kilometers in length, runs to Mollendo, a port on the Pacific, which is now used in traveling from the Pacific to the Atlantic coast, via Bolivia and Buenos Aires, and to which reference will be made later.

The transportation of passengers and freight between Peru and Bolivia, via Lake Titicaca (a picturesque body of water and the highest navigable lake of its size in the world), is made at the present time in comfortable steamers, and at some later date ferryboats will doubtless be used for this purpose. The Bolivian port of destination is Guaqui, which, like Puno, is on the lake at an elevation of 3,890 meters above the level of the ocean.

The distance from Guaqui to the Argentine-Bolivian frontier, via Viacha (near La Paz, capital of Bolivia), is 878 kilometers. From Viacha a railway runs to Arica, a Pacific coast port. The line to the Argentine frontier passes through Oruro, noted for its tin and wolfram mines, and Uyuni, where a branch road runs to the Pacific coast port of Antofagasta. The Bolivian-Argentine Railway at present terminates at Atocha. Between Atocha and La Quiaca, the latter the first point in Argentine territory, the railway



WATER TANK AND TURNTABLE ON THE OROYA RAILROAD, PERU.



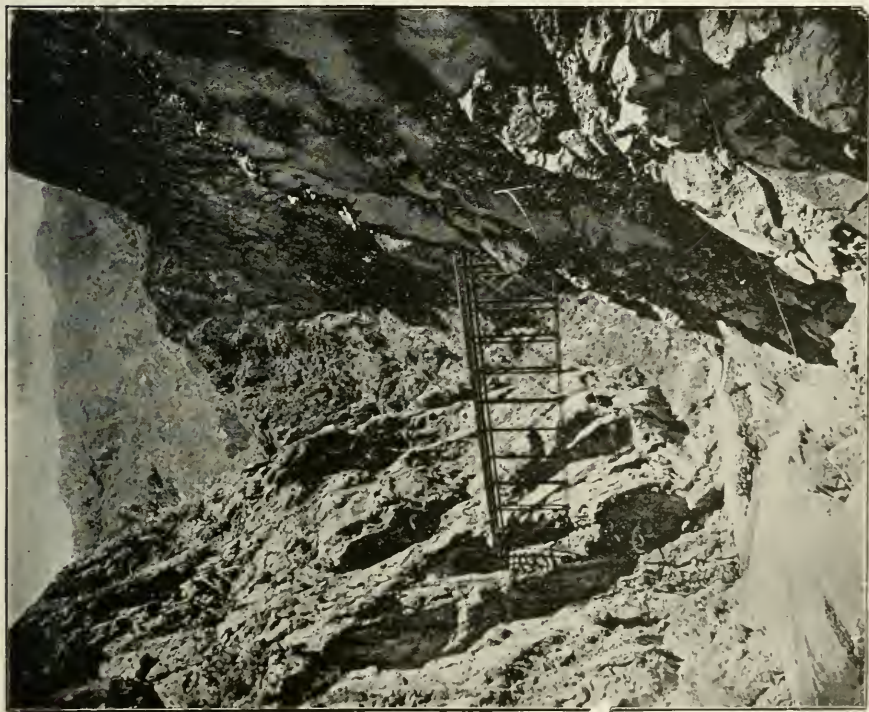
JULIACA, A RAILWAY JUNCTION IN SOUTHERN PERU.

From Cuzco to Puno on Lake Titicaca the railway passes through Juliaca. At Juliaca there is a branch line, 447 kilometers in length, running to Mollendo, a port on the Pacific.



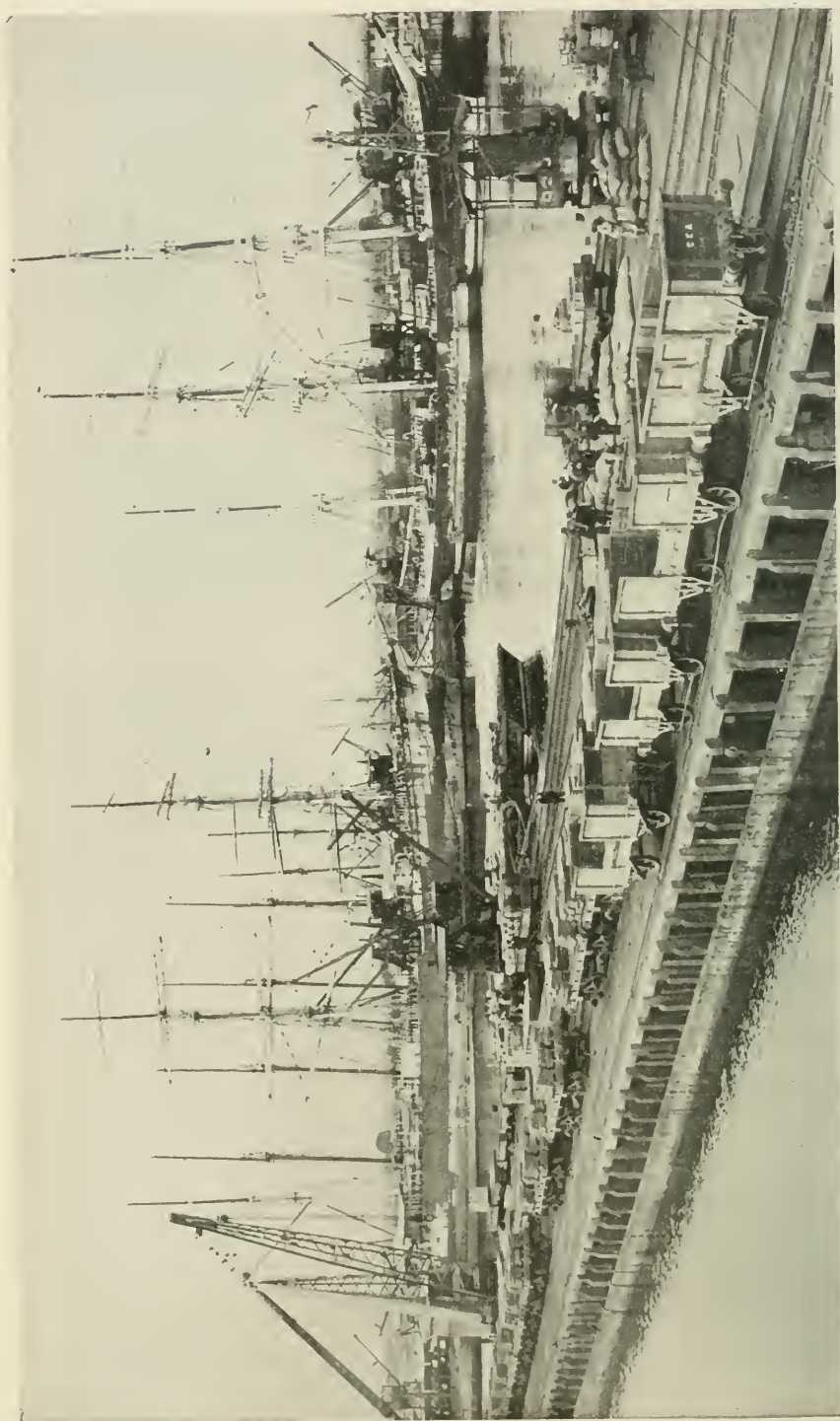
ON THE ROAD FROM TUPIZA, BOLIVIA, TO LA QULACA, ARGENTINA.

The new railway will pass near this rest station in the Andes.



DIFFICULT CONSTRUCTION POINTS ON THE OROYA RAILROAD.

Left: The "Infernillo" bridge. The railway tunnels a high mountain on either side of a deep ravine, which runs the Oroya Railroad. Right: "El Viso," the "V," in the cnyen of the Rimac River over



VIEW OF CALLAO, PERU.

Callao is the sea port for Peru's capital, Lima. The Peru-Argentine railways will connect this port on the Pacific with Buenos Aires, Argentina, on the Atlantic.

is now being slowly built over a distance of about 200 kilometers. This distance is now made in comfortable automobiles.

The entire survey over the Andine plains of Bolivia at an elevation of about 3,700 meters above the level of the sea has easy grades.

Once in Argentine territory the passenger is transported by rail to Buenos Aires, traveling a distance of 640 kilometers to Tucuman, and from that point to the Argentine capital across the romantic pampa or plains, the distance is 1,146 kilometers via the comfortable Central Argentine Railway. The Cordoba Central Railway also runs from Tucuman to Buenos Aires.

The total distance according to this itinerary is as follows:

	Kilometers.
Callao-Lima-Oroya-Huancayo.....	350
Huancayo-Ayacucho-Cuzco.....	810
Cuzco-Juliacca-Puno.....	393
Puno-Guaqui.....	150
Guaqui-Viacha-Oruro-Uyuni-Atocha.....	678
Atocha-Tupiza-La Quiaca.....	200
La Quiaca-Tucuman-Buenos Aires.....	1,786
Total.....	4,367

At present, and while the rails on the section between Huancayo and Cuzco are being laid, the journey is made between Callao and Mollendo by steamer, and is continued from the port of Mollendo by rail, via Arequipa, the second city of Peru, to Puno. The journey from ocean to ocean over this route is as follows:

Sections.	Distance in kilometers.	Means of travel.	Days (estimated).	Time actually consumed, in hours.
Buenos Aires-Tucuman-La Quiaca.....	1786	Rail.....	2	50
La Quiaca-Tupiza-Atocha.....	200	Auto.....	2	8
Atocha-Uyuni-Oruro-Viacha-Guaqui.....	678	Rail.....	2	21
Guaqui-Puno (Lake Titicaca).....	150	Steamer.....	1	27
Puno-Arequipa-Mollendo.....	370	Rail.....		
Mollendo-Callao (574 miles).....	924	Steamer.....	2	40
Callao-Lima.....	13	Tramway.....		
Total.....	4,121		9	146



MANUFACTURES OF SAO PAULO¹

DURING the first decade of the Republic the prevailing abundance of capital and labor gave rise to an improvised industrial activity throughout the State. Numerous plants were installed, some of which did not possess the requisite conditions of stability. Owing to the financial troubles of 1897 to 1900, these concerns found themselves in a very difficult situation, in the midst of which some of them disappeared completely and others were reorganized.

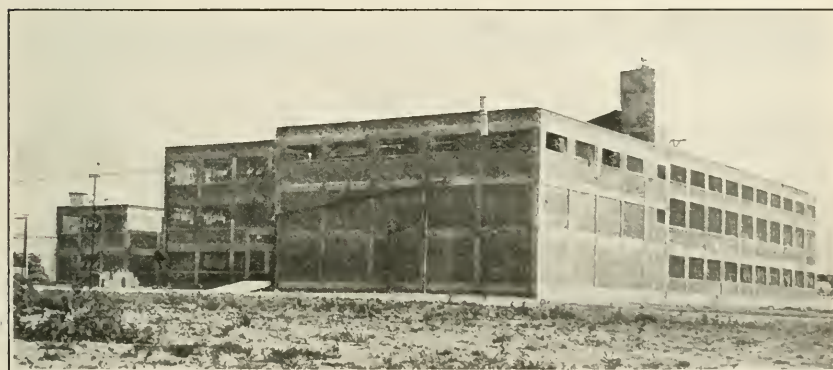
After the year 1900, under the protection of the new tariff, the manufacturing interests of the State underwent a very rapid increase. Textiles, footwear, hats, beer, macaroni, etc., began to be produced in sufficient quantities, not only to supply the home market, but to supply other sections of the Republic. Owing to the difficulties surrounding the collecting and organizing of the industrial statistics of the State, this work had not been attempted prior to the year 1900. From that year, however, we have succeeded in assembling the figures indicating the value of the output of the industries as a whole.

Year.	Brazilian currency.	American gold.	Rate of exchange.	
			Sterling pence per milreis.	Cents per milreis.
1900.....	69,752\$000	\$13,182,428	94½	18.9
1905.....	110,290\$400	35,296,128	15½	31.9
1910.....	189,370\$000	51,400,878	15½	31.3
1911.....	210,885\$000	68,826,697	16½	32.6
1912.....	253,749\$256	82,489,966	16½	32.6
1913.....	232,201\$173	75,233,181	16	32.4
1914.....	212,231\$730	63,669,515	14½	30.0
1915.....	274,117\$422	68,098,219	12½	24.8
1916.....	358,911\$968	86,138,872	11½	24.0
1917.....	562,382\$651	110,595,412	12¾	25.0

These totals are composed chiefly of the manufacture of textiles, footwear, hats, beverages, etc.

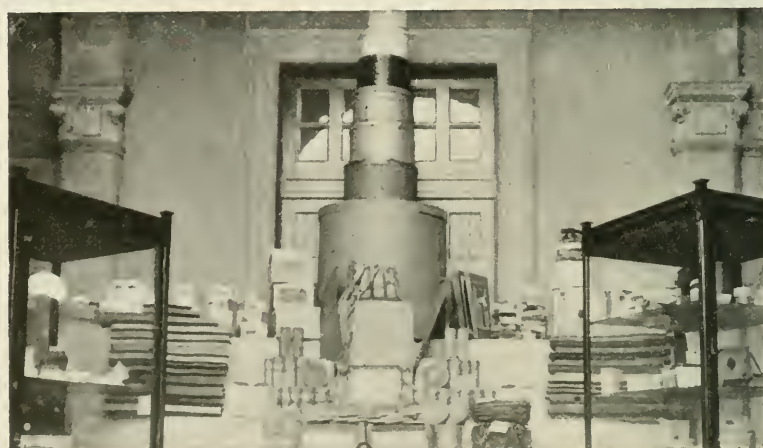
In 1915 the Bureau of Industry and Commerce ascertained that in the different municipalities of the State there were registered 6,912 industrial plants of all sizes, not including sugar mills and rum stills. The principal industries were represented by the number of factories and shops as follows: Textiles of cotton, wool, etc., 64;

¹ Translation of an article by Dr. Paulo Pertana in the Bulletin of the São Paulo Bureau of Industry and Commerce.



INDUSTRIAL PLANTS AT SÃO PAULO.

Upper: Electric light and power plant of the city of São Paulo. Center: General view of the Continental Products Co. of São Paulo. Lower: Refrigerating section of the Continental Products Co.



MANUFACTURES OF SÃO PAULO.

Upper: Wicker furniture, brushes, etc. In 1915 there were 304 factories producing furniture and decorations. Center: Jute fabrics. Jute textiles of São Paulo are manufactured in four plants, with an output of about 10,000,000 meters of material per year. The raw material is imported from India. Lower: Products of the São Paulo paper mills.

ribbons and laces, 8; hosiery, 21; shirts, 20; gloves, 4; hats (ladies' and men's), 269; footwear, 66; macaroni, 218; biscuits, 103; sweets, 174; preserved foods, 27; farina and starch, 231; cereal mills, 541; beer, 270; other beverages, 200; furniture and decorations, 304; harness and saddles, 248; tanneries, 78; iron and brass foundries, 62; railway shops, 18; agricultural machinery, 65; wagons and carts, 383, tile, pipe, and brick, 972.

The European War, by restricting importation and raising the cost of imported foods, brought about the rapid expansion of our industries, which result was facilitated by the increased volume of money in circulation. Along with the establishment of new plants devoted to industrial branches not already exploited, there was an increase in the output corresponding to the demands of the home market, which was destitute of foreign products.

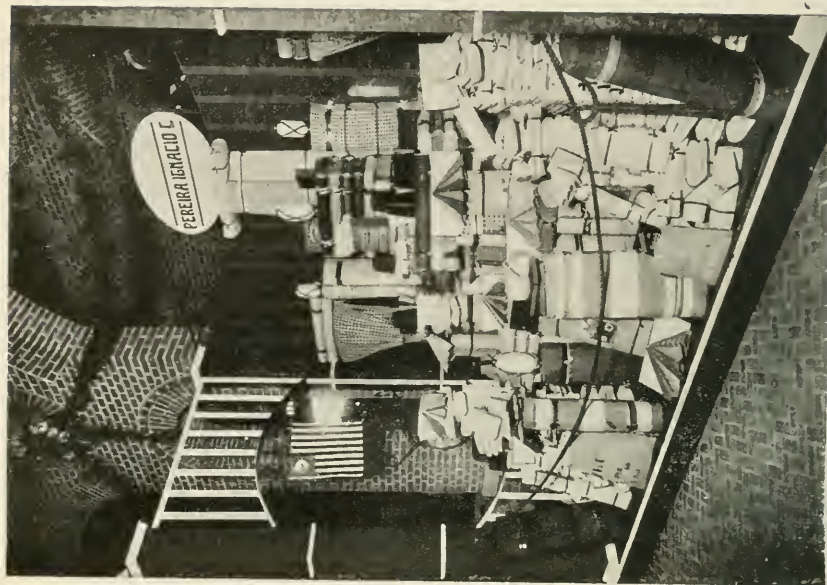
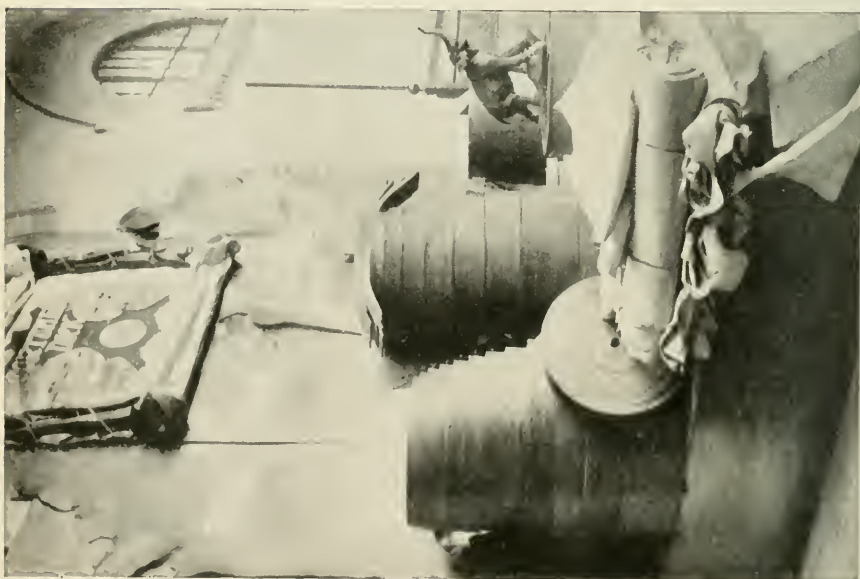
From 1915 to 1917 there were 323 plants established in the State with an aggregate capital of 14,087,624 milreis (\$3,521,906) according to the entries at the commercial registration office. Among them, worthy of mention, were 3 factories manufacturing oil and lubricants; 17 devoted to chemical products; 1 of absorbent cotton; and 3 for the preparation of mica. The growth of the industrial output is shown by the following figures:

Year.	Cotton textiles.	Shoes.	Hats.	Beer.
	<i>Meters.</i>	<i>Pairs.</i>		<i>Liters.</i>
1900.....	31,500,000	1,600,000	1,060,000	8,000,000
1905.....	36,646,000	1,980,000	1,400,000	14,200,000
1910.....	75,833,470	3,608,287	2,372,564	18,973,519
1915.....	121,589,728	4,835,021	2,477,253	27,959,360
1917.....	160,234,130	6,806,881	2,622,794	18,835,987

In the year 1915 the manufacturing industries revived from the effects of the financial crisis in 1914, owing to the difficulty of importation arising from the war. A number of establishments that had been idle from the middle of 1913 were reopened, and a considerable number of new ones were started in order to supply the home market with products not hitherto manufactured in the State.

The leading industry of the State, cotton weaving, has made rapid strides during the past 10 years. There has been an increase in the number of factories, as well as laborers and the amount of capital invested. The following table shows the rate of increase:

Year.	Plants.	Workers.	Capital (milreis).
1905.....	18	6,296	27,578,290
1910.....	24	13,396	46,652,815
1915.....	41	17,978	81,455,422
1916.....	41	21,216	88,418,821



PRODUCTS OF SÃO PAULO'S FACTORIES.

Left: Leather from Brazilian hides made in the tanneries at São Paulo. In 1915 there were 78 tanneries in the State of São Paulo. Right: Textile products. In 1905 textile products to the value of 19,688,400 milreis were manufactured. In 1915 the value was 183,818,081 milreis. The quantity also increased over 400 per cent.

There was also a marked increase in the output of the textile industries, as may be seen from the following figures showing the quantity manufactured and the value of the product:

Year.	Meters.	Value (milreis).
1905.....	36,646,000	19,688,400
1910.....	75,833,470	38,747,675
1915.....	121,589,728	58,968,874
1917.....	160,254,130	183,818,081

In 1916 the cotton factories then operating in the State had 21,216 laborers, 13,882 looms, and 712,075 spindles. The motive power was divided into electricity, 19,970 horsepower; water, 2,000 horsepower; and steam, 1,262 horsepower. The textiles manufactured consisted mainly of unbleached cotton, both white and colored, ducks, cretonnes, etc., and also towels, counterpanes, damask, and linen. There were 11 wool factories, with a combined capital of 3,870,000 milreis. The output, valued at 6,712,000 milreis, consisted of twills, flannels, blankets, etc.

Jute textiles are manufactured in four plants with a capital of 29,150,000 milreis. They produce about 40,000,000 meters of material per year besides carpets and other articles. The raw material is imported from India. Rattan fiber has of late been utilized mixed with the jute. Six factories, with an aggregate capital of 1,300,000 milreis, produce silk goods.

The footwear industry is also very important in São Paulo. In 1917 there were 61 factories driven by power, and 1,823 shoe shops with less than 6 workers each. The total output for that year was 6,806,984 pairs of boots, shoes, slippers, and sandals, valued at 48,482,418 milreis. The exports of these articles to the other Brazilian States reached the sum of 24,907,000 milreis.

The hat industry is well developed, there being 28 large factories and approximately 200 smaller ones producing men's, ladies', and children's hats. In 1917 these factories turned out 2,762,831 hats of wool, felt, and straw, valued at 16,439,000 milreis. The exportation of hats in 1917 amounted to 8,432,000 milreis.

In the food-products industry an important place is held by breweries and establishments manufacturing various beverages. More than 138 first-class factories and 232 second-class and 934 third-class establishments are engaged in the production of drinks.

Other industries deserving of mention are the manufacture of biscuits, macaroni, preserves, and sweets. There are 78 tanneries in the State which tan about 250,000 hides per year by the use of man-grove bark and *barbatimão*. This leather is utilized in the manufacture of shoes, harness, saddles, etc. Besides the industries mentioned a number of others add to the prosperity of the State, such as the manufacture of metal goods, agricultural machinery, furniture, glass products, paper, rope, and whalebone.

LATIN AMERICAN MONETARY SYSTEMS¹

A UNIFORM UNIT.

THE monetary systems of the Latin American Republics present an array of singularities which may appear astonishing in view of the otherwise substantial similarities of race, languages, history, location, industry and commerce of the 20 countries. At first it would appear that each of the 20 had sought as far as possible to differentiate itself from its neighbors and all the world beside. Even among the small group that in recent years has assimilated its monetary systems to that of the United States by adopting as a standard the United States dollar, Cuba, Dominican Republic, Haiti, Panama, and Nicaragua, there is no such singleness of monetary usage as exists in the United States and generally in other countries. Uniformity more or less there is in some of the republics, yet it is uniformity within the country itself, not apparent in relation to any other country. But when one delves into the subject he soon finds complete evidences that the Latin American countries have never been actuated by a purpose to create new and individual money systems; that in truth the present systems, unrelated and individualistic as they may appear, are the results of evolution and have an intimate connection with both the past and the present monetary systems of the great commercial world. Governments have followed what was, or what seemed to them, the lines of least resistance. They have never sought to impose new and reformed units, as did France in 1795 and Germany in 1871, but in most cases have, from time to time, standardized what appeared at the moment to be the most convenient, because the most used, units. Two countries, Argentina and Venezuela, perhaps at the time being under the impression that the French unit, the franc, would become universal, conformed themselves to the Latin Monetary Union, and Colombia more recently adopted the British standard. With these exceptions and covering a period of more than 50 years every alteration or change in Latin American money standards was dictated by commercial and industrial usage and legalized by governments with more or less reluctance.

One hundred years ago it would have appeared to be a safe prediction that the world was on the eve of arriving at a uniform money system. The Spanish pillar dollar (peso), the "piece of eight"

¹ By William C. Wells, of Pan American Union Staff

(reals), had become the commercial standard for international trade in practically every country, and in many countries was better known and had a broader use in the domestic trade than the particular coins of the countries themselves. Even in conservative England the dollar was the coin and the unit of account best known and most used by all trading folk. Florins, crowns, and shillings throughout the British Islands and British possessions overseas were treated almost if not entirely as subdivisions and fractions of the dollar. The guinea (gold), and the restamped Dutch and Spanish dollars were the British concessions in terms to the almost universal measure of values.

When it became necessary for the 13 emancipated British colonies, the United States of America, to enact monetary laws of their own, the only sensible thing to do, in fact the only thing that was thought of doing, was to accept as a base the pillar dollar, which then was in fact the standard of commerce in the country, and throughout all the settlements, British, Spanish, French or Portuguese, from Canada to Cape Horn. Consequently, the second Congress of the United States, following the purport of resolutions adopted in the Continental Congress of August 8, 1786, and July 6, 1787, enacted the law approved by President George Washington on April 2, 1792, making the Spanish pillar dollar the base of the United States coinage and monetary system, and two years later the first coins were issued. This law was in reality nothing more than the legal acceptance of a fact which had become such by commercial usage. One innovation, an important one, was made, and that was the grafting of the decimal system of fractions and multiples upon the pillar dollar. Instead of preserving the Spanish fractional division into eight reals and the multiples of 8 and 16, or attempting further to develop and legalize the inchoate British adaptation of shillings, florins, and guineas, or to standardize any one of the American colonial adaptations—6 shillings to the dollar in Virginia and 8 in New York—a new division into tenths and hundredths was adopted. This new division of the dollar was not long after accepted by the Spanish colonial mints—Peruvian and Mexican; the Mexican mint alone issued about 2,250,000,000 dollars up to 1823, which entered into the circulation of practically every country in the world.

It is too long a story to tell here of why the hope for an international uniform monetary system that was apparently so near fulfillment in the first quarter of the nineteenth century, should in the last quarter of the same century have become dissipated into a realization of complexity and diversity greater than had ever before existed since man first used in barter tokens of gold, silver, brass, shell, or anything else. Scarcely any two authorities agree as to the causes that underlie the change chiefly in the third quarter of the last

century and especially the action of Great Britain, France and Germany in ridding themselves of the dollar. Great Britain went back to the pound sterling which became the single unquestioned standard; Germany made a new standard of its own and France revived the franc of the revolutionary period (1795) and tried, and in a measure succeeded through the Latin Monetary Union, in making it the uniform standard of a large part of Europe.

While we can not all agree as to the causes for the monetary upheaval, yet in the main they arise from or grow out of the contest between gold and silver, a contest which the world of a hundred years ago was not conscious existed, or even could exist.

The dollar became—with reason or without reason, just as one chooses to look at it—the emblem and badge of silver and as such all of western Europe, all the commercial countries whose influence carried weight in international trade, discarded it. On the American Continent the dollar was conventionalized by the United States and Canada as a gold standard coin. Most of the other countries preserved the dollar as a distinctive silver coin, in other words they accepted in the place of the standard dollar the fluctuating silver token still called the dollar but in reality something different. This condition, as one readily sees, was forced upon them. The dollar, the thaler, the piece of eight, the peso, by what ever name it may be known, when coined in silver was apparently the same, but it was not necessarily the same, because the great commercial countries, for reasons which to the writer appear good but to another may appear bad, had chosen to treat silver as a commodity to be measured as other commodities are in terms of gold, and to regard the silver dollar as the especial badge and emblem of a silver money standard.

We can see now that the breaking away from silver, the establishment of the single gold standard, did not necessarily involve the loss of the uniform world-known dollar. The gold standard could have been fixed, the dollar preserved, by being conventionalized as it was in the United States in 1873, and thereby the substantial gains towards uniformity made through centuries of commercial interchange would not have been lost to the world. The action of the United States proved that it was easy to disassociate the dollar as a standard from the silver coin to which the name was given. The world had been accustomed to treat the dollar as something apart from any particular coin. The situation could have been saved by a little foresight.

In the four leading commercial countries there appeared to be no thought, except in France, that uniformity was something to be desired, and France missed its opportunity by revivifying a newer unit rather than by preserving the older. As it was, with the new and

awkward franc, on the plea of uniformity, France was able to draw to itself Italy, Spain, Greece, Belgium, Roumania, Finland, Switzerland, and two American countries. Had France conventionalized the dollar as the base of its system in line with the United States, both England and Germany would have been forced to follow suit, at least to the extent of coining and issuing an international trade base coin to be known as the dollar, or as four shillings or four marks. The name is immaterial. Eventually the trade coin conventionalized to the so-called gold standard, would have forced, in all probability, these two countries to readjust their coinage laws applicable to the domestic currency, so that in one the pound would have the gold content of five dollars, and in the other, the mark of one fourth of a dollar. If France had taken the action, Germany doubtless never would have attempted a separate monetary system. The dollar has peculiar claims on Germany. The name used in all except Spanish speaking countries is German (thaler) and St. Joachims Valley in Bohemia (Joachimsthal) was in all probability the place from which the coin was first issued.

The opportunity was missed because England and Germany apparently saw no advantage in uniformity and France went about it in the wrong way. The United States alone at that time had not the financial, commercial, and industrial strength necessary to resist the growing condition of monetary chaos. Chaos in reality it became, in all the world outside of these four countries but especially so in Latin American countries. With the discrediting of the dollar, or more correctly with the identification of the dollar with the so-called silver standard, the Latin American countries believed themselves forced into accepting one of two alternatives, either to keep the dollar and with it the inconstant silver standard, or to discard the dollar and accept the English, French, or a new unitary base founded on gold. Another alternative, that of conventionalizing the dollar to the gold standard in line with the United States seemed never to have presented itself to any except, at a later period, to Uruguay, and Uruguay made the mistake of basing its calculation upon the old parity of $15\frac{1}{2}$ to 1, instead of 16 to 1, thereby creating a standard of nearly $3\frac{1}{2}$ per cent too much gold content. In effect the Uruguayan is a new standard like the franc, and so, for the same reasons, are the Mexican and Costa Rican gold standards new. At first all the Spanish speaking countries kept the dollar and thereby secured uniformity among themselves and with Asia, but such uniformity proved of little value since there was and is but little inter-state or Asian trade. The overwhelming proportion of the trade of each of these countries is with Europe and the United States. The apparent exception, Paraguay, is not in reality an exception. Its trade, represented statistically as being principally with Argentina, is, so far as Argentina is concerned, almost entirely a transit trade.

Uniformity, when not uniform with the great commercial countries, was worthless.

First one country and then another dropped the silver dollar until at the beginning of the war, in 1914, only the four (soon with the dropping out of Nicaragua, three) Central American countries and Paraguay (nominally) remained with the silver standard. All the others were upon the gold base—for the moment paper currency is not considered. Thirteen of the countries within the last 30 or 40 years have chosen as a base the standard monetary units of either Great Britain, France, or the United States and three of them have conventionalized the dollar to the gold standard at parities differing from that adopted by the United States. In every case the decimal system of subdivision and multiples has been chosen.

BASE, BRITISH GOLD.

Chile.—The standard, called peso, is of the value of 1 shilling 6 pence, divided into 100 centavos.

Brazil.—The standard, called milreis, is of the value of 2 shillings 3 pence, divided into 1,000 reis.

Peru.—The standard, called libra, is of the value of 1 pound (20 shillings), divided into 10 sols and each sol into 100 centavos.

Ecuador.—The standard, called sucre, is of the value of 2 shillings, divided into 100 centavos. The sol and the sucre have the same value.

Bolivia.—The standard, called boliviano, is of the value of 1 shilling 7.2 pence (12½ bolivianos to 1 pound), divided into 100 centavos.

Colombia.—The standard, called peso, is of the value of 4 shillings, divided into 100 centavos.

BASE, FRENCH GOLD.

Argentina.—The standard, called peso, is of the value of 5 francs, divided into 100 centavos.

(Paraguay for the most part follows Argentina. The gourde of Haiti formerly had the same value as the Argentine peso.)

Venezuela.—The standard, called bolivar, is of the value of 1 franc, divided into 100 centavos.

BASE, UNITED STATES GOLD.

Cuba.—The standard, called peso (sometimes dólar), is of the value of 1 dollar, divided into 100 centavos.

Dominican Republic.—The standard, called peso (or dólar), is of the value of 1 dollar, divided into 100 centavos.

Haiti.—The standard, called gourde, is of the value of 25 cents, divided into 100 centimes.

Panama.—The standard, called balboa, is of the value of 1 dollar, divided into 100 centavos.

Nicaragua.—The standard, called córdoba, is of the value of 1 dollar, divided into 100 centavos.

BASE, PESO GOLD.

Uruguay.—The standard, called peso, is of the value of about 1 dollar 3.42 cents, United States, divided into 100 centavos.

Mexico.—The standard, called peso, is of the value of about 49.85 cents, United States, divided into 100 centavos.

Costa Rica.—The standard, called colon, is of the value of about 46.53 cents, United States, divided into 100 centavos.

BASE, PESO SILVER.

Guatemala, Salvador, Honduras and (nominally) Paraguay.

The standard, called peso, is divided into 100 centavos, its value at the commercial price of silver on July 1, 1919, was about 80 cents.

SUBSIDIARY SILVER.

Ten of the Latin American countries issued silver coins on a ratio in weight with gold of $15\frac{1}{2}$ or 16 to 1, the same ratio as of France, England, and the United States. Since about 1874, and up to the present, this ratio is much lower, that is, more favorable to silver, than the commercial ratio. At times the commercial ratio has risen to about 32 to 1, and it is now about 20 to 1. The result in each of these ten countries has been, as in England, France, and the United States, to keep silver coins in circulation in the countries respectively issuing the same. None could be exported because only within the countries issuing them were they current at their face value.

In the remaining six countries, Peru, Mexico, Bolivia, Ecuador, Panama, and Costa Rica, each of which adopted the gold standard during the period of great depression in the value of silver, i. e., between 1897 and 1912, attempts were made to adjust the ratio between the two metals to a parity more nearly approximating the commercial ratio. Following this purpose, silver coins were issued at a ratio round or about 30 to 1. In all these countries with the recent rise in the price of silver the commercial ratio between the two metals has fallen below the coinage ratio. At present it is about 20 to 1. The result has been naturally that silver has gone out of circulation or circulates at a premium. For example, a Peruvian silver sol coined to represent one-tenth of a libra gold is now worth, outside of Peru, nearly one-sixth of a libra. Expressed in terms of United States currency the silver sol nominally worth 48.6 cents (2 shillings British) is in reality worth about 80 cents (3 shillings 3 pence.) In the same way the Mexican silver peso, nominally worth 49.8 cents, has in reality a value 60 per cent above its nominal or coinage value.

PAPER CURRENCIES.

The assumption running through all that has been said above that the majority of the Latin-American countries are at present on the gold basis is no more true than that England, France, and the United States at present are on the like basis. Strictly speaking, as everyone knows, no country in the world to-day has the gold standard.

The countries which from the domestic standpoint are in the position of being able to return to the gold basis immediately, i. e., immediately to make effective, as in the past, the free exchange of gold and paper, are not able to do so because of the international

status through which they would, in a period measured by only a few days, be entirely denuded of all gold. The countries of inflated paper currencies would immediately absorb the whole. The Latin-American countries and Spain, to the extent at least that they were on the gold basis before August, 1914, and in addition Holland, Switzerland, the Scandinavian countries and perhaps others, neutral in the war, are in precisely that position. So far as they are concerned, nothing prevents the immediate return to the gold basis. Their paper currencies are not now inflated to the extent that they can not safely offer a free exchange between gold and paper, and all of them have increased their gold reserves. But not one of the countries mentioned, nor all of them together, could maintain the gold standard for even one week against the suction power of the great commercial countries whose currencies are inflated in the highest degree. For example, Italy has outstanding over 20,000,000,000 lire in paper and France over 36,000,000,000 francs against which the gold reserves of France, Italy, and all the neutral countries combined are but a trifle.

The gold standard is everywhere in abeyance and must remain so until the United States, Great Britain, and France at the least are able to join the group, which is even now otherwise prepared to resume gold payments. Meanwhile prohibitions and restrictions on the exchange and export of gold will continue, each country using its gold reserves as a regulator of its foreign commerce.

Although not one of the Latin-American countries is on the gold basis in the sense that it was before August, 1914, yet this basis is the only one that can be assumed as existing. This assumption is freely made for England, France, and the United States, and a fortiori must be made for the 16 Latin-American countries having the same standard. The parallel assumption must also be made that Salvador, Guatemala, and Honduras have the silver standard.

The relation of metallic currency to paper must be assumed to be the same now as it was before the war; it being understood that in the Latin-American countries paper issues are now strengthened by increased gold reserves resulting from the increased trade balances since 1915. In other words, the Latin-American countries are in a better position than they were in 1914 to maintain paper circulations on a parity with gold, or silver, as the case may be. They are held back from free exchange by the undetermined relation of gold and paper in the countries recently at war with Germany.

INCONVERTIBLE PAPER.

The paper currencies of Chile, Guatemala, Haiti, Paraguay, Mexico, and Colombia were not before 1914 on the basis of free exchange with metallic currency, and are not yet even in theory on this basis. The currency is depreciated and fluctuating.

In Chile the paper peso of the face value of 18 pence ($36\frac{1}{2}$ cents U. S.) now passes current at about 10 pence but constantly fluctuates.

In Guatemala the paper peso of the face value of 1 peso silver passes current at present at about 50 per cent of its silver value. It was much below this rate before the war.

In Haiti the paper gourde of the face value of \$0.25 passes current now at about \$0.18.

In Paraguay the paper peso of the face value of 1 peso silver passes current now at less than one-tenth of its value in silver. Paraguayan commerce in reality is on the basis of Argentine paper and gold.

In Mexico various issues of paper nominally of the face value of 1 peso gold (49.85 cents U. S.) are much depreciated. No satisfactory statement can be made of the rate of depreciation of the several issues.

In Colombia the older issues, some of them on a silver basis, are all alike depreciated to 1 or 2 per cent of their face value. The new issue in Colombia passes current at about 94 or 95 per cent of its face value in gold (4 shillings or 97.4 cents in U. S.).

In this group of countries (to which Brazil must be added), following the invariable rule that where there is an inconvertible, and consequently depreciated paper currency, in connection with a metallic legal base, the paper excludes metallic currency in domestic use and trade. The cheaper in this case drives the dearer from use. Except in transactions connected with the importation of foreign merchandise and payment of other obligations due foreigners on account of loans etc., this group of countries is and has been for years strictly on a fluctuating paper basis. Nothing but paper circulates among the masses of the people and prices are made and quoted in paper.

CONVERTIBLE PAPER.

Argentina.—The paper peso of the face value of 5 francs (96.48 cents U. S.) is depreciated to 44 per cent of its face value (42.45 U. S.), but is convertible at this rate and consequently not fluctuating, it being understood that conversion is suspended at present as in England, France, etc.

All internal trade in Argentina is on the base of the paper peso. There is, however, an important difference between the paper circulation in Argentina and in the group of countries above mentioned. The Argentine paper peso is in reality a gold money, while the others are not. It is a $\frac{4}{100}$ part of the gold peso—an inconvenient fraction, but not differing in essence from $\frac{1}{10}$, $\frac{1}{4}$, $\frac{1}{2}$, or other more used fractional subdivisions of the unit.

Brazil.—The paper milreis of the face value of 27d (54.62 cents U. S.) is depreciated in theory only to 16d (32.44 cents U. S.), i. e., the Brazilian currency laws dictate a conversion at this rate in a manner

which when fully operating would have the same result as by the Argentina conversion law to maintain the paper milreis at $\frac{1}{2}\frac{5}{7}$ of its face value, as in Argentina the paper peso is maintained at $\frac{4}{10}\frac{1}{6}$ of its face value. But the Brazilian conversion laws do not always function and as a result paper fluctuates below 16d. Brazil is therefore to be placed in the group of countries having an inconvertible currency. At present the paper milreis is current at from 13 to 14d.

BANK NOTES.

The paper circulations of Bolivia, Peru, Ecuador, Venezuela, Uruguay, Dominican Republic, Panama, Costa Rica, Nicaragua, Cuba, Salvador, and Honduras consist of bank notes. In some cases the issues are guaranteed by the Governments and the issue in all cases is so regulated. In very few cases has it occurred that bank notes in the countries mentioned have become in any degree depreciated.

THE HOPE OF UNIFORMITY.

The three chief barriers to international trade are the diversities of language, measures, and moneys. We can not hope to remove the first; the second, although very much less difficult, yet has a remarkably tenacious hold; the third is the least strongly entrenched of all, especially at this time. Once the world was near a uniform money; it missed realization not because of any weakness in the cause itself or that it had become less desirable, but simply because the overwhelming increased production of silver in the last half of the nineteenth century required a readjustment of the relation of this metal with gold and this fact was not realized in time. Before it was realized the chief commercial countries had split away, each for itself, and as a result the almost universal dollar became either the badge of silver in Asia and in Latin America, or the peculiar coinage of the United States, on a gold base.

With the loss of uniformity came first an elaboration of individualism. Countries appeared to seek to have each a separate and distinct money of its own. The one exception was the French group, the so-called Latin Union, upon which hope was based by many theorists. But there was not power enough behind the group—commercial, banking, and industrial power—to carry uniformity in face of the United States, Germany, and England. Especially could it not overcome the resistance of England. Furthermore the franc as a base had the inherent weakness that it was a new unit having no historical relation to any country, not even France.

A step farther, at the beginning of the twentieth century and until the war of 1914, the monetary systems of all the countries of the world had assimilated themselves to one of four groups or had become strictly of domestic use. Great countries like Russia, Germany, and

Austria and all the smaller ones having individual currencies, were forced to transact their foreign business in the money of one of these four groups. These groups were:

The English group, comprising the British Islands, most British colonies, the larger part of South America, and practically all the uncivilized and savage parts of the world.

The United States group, comprising the United States, Canada, other British and European possessions in America, Nicaragua, Cuba, Haiti, Panama, Dominican Republic, and Liberia.

The French group, comprising France, Belgium, Switzerland, Spain, Italy, Greece, Servia, Roumania, Finland, Argentina, and Venezuela.

The silver group, comprising three Central American Republics, a large part of Asia and Africa.

This last group is rapidly disintegrating. The contest for commercial supremacy between the other three groups at one time appeared in favor of the French group; later the British group had the undoubted lead and kept it to the outbreak of the war; at present the United States group is in the lead, due to the war and the industrial strength of the group.

The world is again at the parting of financial ways. Money standards are all aflux. Whether the world will or can return to the gold basis is a question not to be answered offhand. But if not a gold standard, what? That is a question even more difficult to answer. But whatever the standard be, or whatever the adjustments or concessions necessary to reach it, one thing is certain, that uniformity of base units should be recreated. This is not a difficult task at this time. It means a change in coinage values of not more than 5 per cent—the relative values of 5 francs, 4 shillings, and one dollar being 96.48, 97.33, and 100.00 respectively. This is insignificant as compared with the great depreciation in real standards which has occurred in all the great commercial countries.

Can there be uniformity in Latin America without a world uniformity? It is doubtful. Countries in addition to those which have already adopted the United States standard may do so. The bulk of the trade of all of them is with the United States, but the position is not one to compel action. Argentina kept the French standard when the bulk of its trade was with England; it may continue to keep it when that bulk is with the United States. The pull is toward the United States standard but it is doubtful if that pull is sufficient to carry over the top. Uniformity can come with certainty only through agreement among the three groups above mentioned, that two of them shall drop their base unit for that of the third. In reality, the consideration lies between two, the dollar and the pound, with most advantages in favor of the former.

ARGENTINA'S MEAT EXPORTS¹

IT is satisfactory to note from the statistics compiled by the International Institute of Rome on the trade in meat exports that Argentina leads the world in this branch of international commerce.

The following is a résumé of the five-year period from 1913 to 1917 (both inclusive):

Number of tons exported.

	1913	1914	1915	1916	1917
Argentina.....	446,629	461,998	443,305	546,058	561,079
United States.....	220,567	207,514	572,240	578,467	675,029
Australia.....	216,880	(1)	245,951	58,793	150,916
New Zealand.....	132,314	166,331	185,974	168,716	(1)
Uruguay.....	89,749	88,177	122,421	100,243	(1)
Other countries.....	46,765	50,415	123,510	205,132	218,285
Total.....	1,144,904	971,438	1,694,401	1,657,409	1,635,300

¹ Not known.

In the grand total for 1916 Argentina averaged 33 per cent, but it must be remembered that in this total for the world trade was included the enormous quantity of pork exported by the United States, 452,394 tons or 78 per cent of its total of 578,467 tons.

The following shows the number of tons imported by each of eight meat-importing countries:

Number of tons imported.

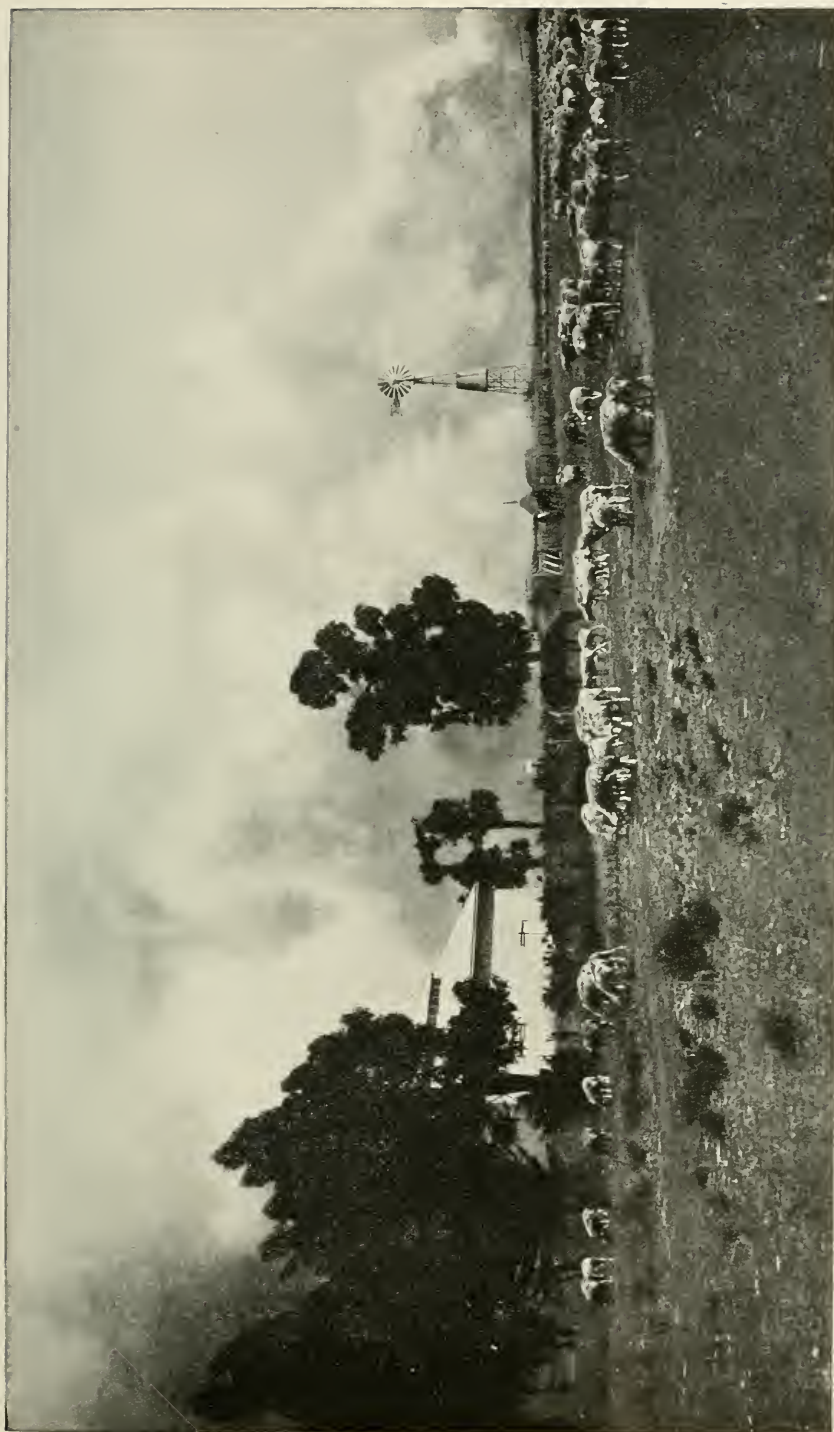
	1913	1914	1915	1916	1917
Great Britain.....	1,181,580	1,198,307	1,281,073	1,186,117	(1)
Italy.....	15,334	5,387	39,471	96,565	111,869
Norway.....	8,936	9,663	1,949	8,948	12,399
Switzerland.....	15,152	7,477	915	1,766	1,500
Netherlands.....	6,254	3,528	7,414	(1)	(1)
Sweden.....	3,831	2,352	2,906	1,766	6,796
France.....	11,871	28,699	223,107	319,393	(1)
Spain.....	351	190	839	2,676	553
Total.....	1,243,309	1,255,516	1,563,674	1,617,296	133,018

¹ Not known.

These figures represent all kinds of meat—mutton, beef, pork, goat, etc.

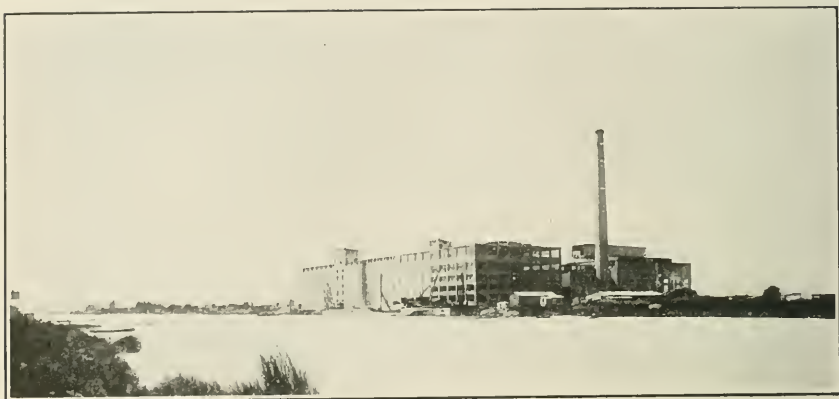
In summing up the annual totals for the four-year period from 1913 to 1916, both inclusive, we find that the imports of the buying countries exceeded the exports of the selling countries some 207,000

¹ Reproduced from "Revista de Economía Argentina," of Buenos Aires.



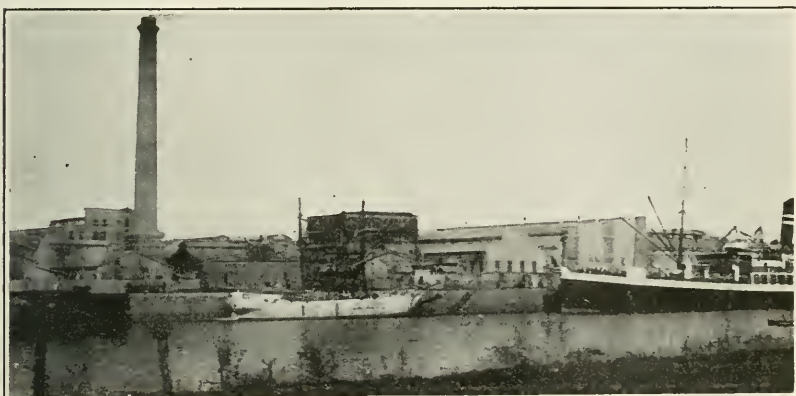
THE ARGENTINE PAMPA.

Argentina is the greatest sheep-producing country in the world with the possible exception of Australia. In the matter of meat exports, however, Argentina leads the world.



THE MEAT INDUSTRY OF ARGENTINA.

Upper picture: The Armour plant at La Plata, Argentina. This establishment is one of the largest and most modern packing houses in the world. Lower picture: Interior of the Armour plant.



ARGENTINA'S LEADING INDUSTRY.

Cattle raising and meat exporting are the leading industries on the great pampas of Argentina. Upper picture: An exhibition of blooded bulls. Center picture: The La Plata Cold Storage Co.'s works at La Plata, Argentina. Lower picture: View of the stockyards at Buenos Aires.

tons. This difference may be attributed to the difficulties that have confronted the statistician during the years of the war. Be that as it may, in comparing 1913, a normal year, with the three years following, it is observed that importation had increased an average of 64 per cent, and it would be interesting to know whether this was due to the unusual consumption of meat for the provisioning of armies, or to a decrease in the cattle in the belligerent countries on account of the ravages of war.

EXPORTING COUNTRIES.

United States.—The preceding statements are of great importance in considering Argentina's meat industry. According to deductions from the figures of the table given, of the 1,578,969 tons of meat exported by the United States in the four-year period from 1913 to 1916, both inclusive, 1,220,133 tons or 77 per cent were pork, the remainder being 22 per cent beef and 1 per cent mutton. Thus, comparing the figures of the two countries of the most importance in the exportation of meat other than pork, we have the following for the four years given:

Mutton and beef:	Tons.
Argentina.....	1,893,524
United States.....	357,656
Difference in favor of Argentina.....	1,535,868

Another point which influences the figures of the foregoing table is the considerable increase in the exportation by the United States during the years 1915 to 1917. In 1915, which may be considered a normal year for meat exportation, the United States exported 16,417 tons of beef, and in 1917 this exportation had increased to 158,354 tons, or an increase of 864 per cent. This increase must have been due to the needs of the European countries and the high prices commanded by exported meats.

It is difficult for the present to say whether this abnormal increase in exportation has decreased the live stock, principally beef, or whether the restrictions imposed on the domestic consumption of meats have been effective.

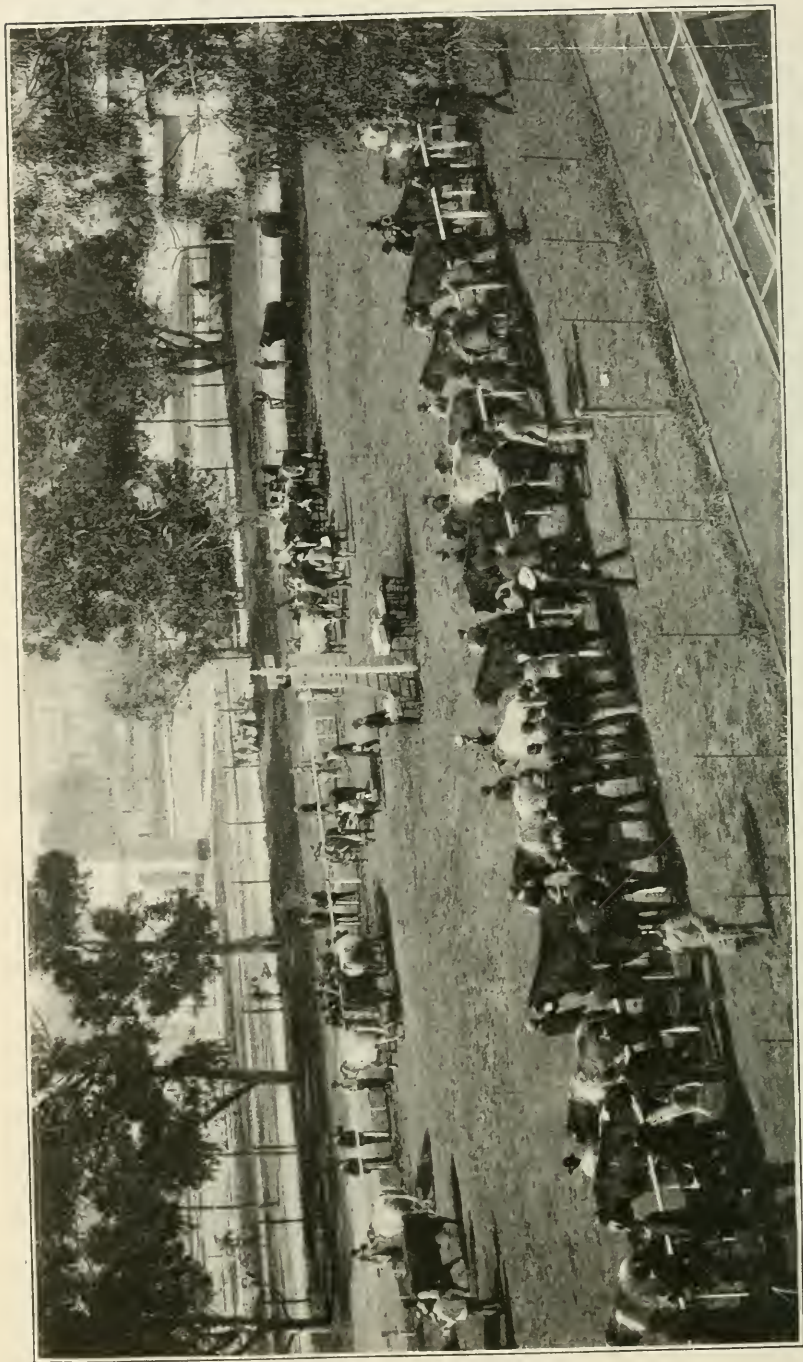
Argentina.—Our exportation of meat during the five-year period from 1913 to 1917, both inclusive, is shown in the following figures:

	1913	1914	1915	1916	1917
	Tons.	Tons.	Tons.	Tons.	Tons.
Beef (frozen, chilled, and jerked).....	370,139	371,345	367,952	428,619	391,837
Mutton (frozen).....	45,928	58,688	30,040	51,318	39,820
Pork.....		353	915	1,512	1,661
Products (tongues, extracts, preserved meats, meat flour, etc.).....	30,552	31,612	44,398	64,409	124,732
Total.....	446,629	461,998	443,305	545,858	561,050



CATTLE LAND IN ARGENTINA.

Upper picture: Scene on the sea front of a large estancia near Buenos Aires. The extent of the country devoted to cattle grazing in Argentina can be doubled without detriment to agriculture, and the number of animals per hectare may be trebled on account of the excellence of the pasturage. Lower picture: Cattle land along the Parana.



CATTLE EXHIBITION AT PALERMO, ARGENTINA.

The National Live Stock Exhibition held annually at Palermo is an unusual exhibition of some of the finest blooded cattle in the world. A few years ago at this exposition a Durham bull was sold for \$35,000.

The figures of 1917 compared with those of 1913 show an increase of 25 per cent in our exportation of meat, or an excess of 114,421 tons, representing a value of 67,984,706 pesos, national money, according to the rigid customhouse valuations.

Australia.—The figures of the first table show that the exportation of meat from Australia has diminished instead of increasing during the war, as, in 1913 they amounted to 216,880 tons and in 1916 they had decreased to 58,793 and in 1917 to 150,916 tons. This last sum includes the following classes of exports to England for the year 1915, which was the heaviest export year: Frozen beef, 62,839 tons; preserved beef, 13,890 tons; frozen mutton, 63,731 tons, or a total of 140,460 tons, against 168,307 tons in 1913 before the war.

New Zealand.—The largest exportation to England from New Zealand took place also in 1915, according to the following figures: Frozen beef, 37,351 tons; preserved beef, 1,315 tons; frozen mutton, 123,083 tons, or a total of 161,749 against a total of 124,660 tons in 1913, which represents an increase of 30 per cent, a gain of relatively small importance to this English colony.

A careful examination of the tables here included would lead one to believe that Argentina will continue to hold the first place in the international meat industry, for the natural conditions for developing the stock business offer exceptional advantages. Considering the figures on stock furnished by the last census on exportation, national consumption and hides, and making a conservative estimate on the increase bred in four and a half years since the date of the census (June 1914), beef on the hoof must number approximately 27,450,000 head. The extent of country devoted to stock raising can be doubled without detriment to agriculture, or even trebled, and the number of animals per hectárea may be doubled or trebled on account of the excellence of the pasturage, and the ability of the animals to gain weight in a short time. This live weight we must take into account, for a mark of progress shown by the stock-raising industry is the fact that more meat is produced from a smaller number of head of cattle than in times past. In reference to the subjects just mentioned the agricultural expert, Señor Snow, in a report made to the Department of Agriculture of the United States, says:

"In Argentina the alfalfa has increased twenty times the pasturage capacity of the land, and no other country can produce better meat than Argentina nor produce it so cheaply."



AVIATION IN CHILE AND THE CROSSING OF THE ANDES¹

S EVEN years ago aviation was unknown in Chile. The arrival of foreign aviators awoke a general enthusiasm, energetic and adventurous spirits like Luis Acevedo, Emilio Castro, Clodomiro Figueroa and others giving themselves to the scientific development of the art. The success of the new champions of the air gave impulse to the idea of founding a national school of aviation, but there was no way to bring it about. Even the Government realized the necessity of adopting the idea, and while Señor Matte Gormaz was Secretary of War, on March 11, 1913, the School of Military Aeronautics was founded under the direction of Gen. Aristides Pinto Concha.

The founding of the school was an added stimulus to civil aviators, the most popular of them, Luis Acevedo, conceiving the idea of the Concepcion-Valparaiso flight. The flight was announced for the 13th of April. On that day enthusiastic crowds gathered from all the surrounding country of Concepcion to bid farewell to the daring aviator, who rose without difficulty, making toward the north. But it was a sad and fateful journey, for an accident a few minutes later brought him down into the Bio-Bio River where he was drowned. A few days afterwards the remains of the first victim of national aviation were brought to Santiago, and his funeral was attended either in body or by representatives of every society, as well as by the School of Military Aviation, detachments from the army, the navy, the firemen, the Boy Scouts, the trade unions, political clubs, students, and the general public. Immediately a subscription was started to aid the widow and erect a monument on the spot from which he began his flight; and in a few days the subscription was complete, once more showing the affection of the public for Acevedo.

The foundation of the School of Military Aeronautics was from this time on the brightest hope for national aviation, eclipsing the public enthusiasm for civil aviators who would have passed into oblivion were it not that one of them, Clodomiro Figueroa, conceived the daring idea of crossing the ridge of the Andes by aeroplane. But Figueroa's daring undertaking did not meet with success.

¹ Translation of an article by "A. T. D.," in *La Information*, of Santiago, Chile.

At the close of 1913 the School of Military Aeronautics gave diplomas to the first military aviators, who were Capt. Enrique Pérez Lavín; Lieuts. Gabriel Valenzuela, Tulio Torres, Arturo Urrutia, Armando Urzúa Lavín, and Francisco Mery; and Sergts. Eleodoro Rojas and Luis Page. At the same time in Europe the "brevet" was accorded to Capt. Manuel Avalos, Lieuts. Eduardo Molina Lavín, Víctor Contreras, Tucapel Ponce, Alejandro Bello, Amadeo Casarino and Sergts. Juan Verscheure and Adolfo Menadier. The School of Military Aeronautics has continued graduating members of the army and the navy, two of the most celebrated students being Lieuts. Dagoberto Godoy and Armando Cortínez who broke the American and world record for aviation, the former in his flight from Santiago to Mendoza across the Andes and over the peak of Tupungato, more than 5,000 meters high, and afterwards Cortínez in his double flight from Santiago to Mendoza and back. Both used Bristol planes from the aerial squadron presented by the British Government to the Government of Chile.

Before describing the triumphs of aviation which have covered the name of Chile with glory, let us recall the other aviators who died on the field of duty, all of them from the school, and also say a few words relative to the founding and development of the Aero Club of Chile. On the 11th of January, 1914, Lieut. Francisco Mery died a tragic death; on the 9th of March of the same year Lieut. Alejandro Bello disappeared during a flight, and the place of his death is unknown to this day; August 17 of the same year Sergt. Alfredo Menadier was killed. The following year, on the 7th of April, Lieut. Tucapel Ponce, held as the best Chilean military aviator, with his companion Lieut. Emilio Berguño were killed during military maneuvers, and a short time afterwards the naval lieutenant, Pedro Luco.

In spite of these unhappy losses the School of Military Aeronautics continued with undiminished energy and visible success. Its first director was Capt. Avallos, who recently died in an epidemic, then Maj. Carlos Lira. The present director is Maj. Armando Díaz. In 1918 the first aviation company was formed, Capt. Pérez Lavín being named commander. This year the Military Air Service was reorganized; Col. Pedro P. Dartnell was named director, and the English major, Victor Huston, was appointed technical consultant. The following foreign students have taken their aviation course in the school: Uruguayans, Lieuts. Boizo Lanza and Saenz; Ecuadoreans, Lieuts. Pedro Traversari and Alberto Suarez; Bolivians, Bernadino Bilbao, Alfonso Crespo, and Luis Arévalo.

The students of the School of Military Aeronautics took part in many contests and obtained good records. The principal contests were those of Santiago, 1915, organized by the Aero Club of Chile, the contest at Viña del Mar, and the one at Buenos Aires, all in the same year.

The enthusiasm which aviation had aroused in all social grades brought together a number of persons who founded, on April 2, 1913, the Aero Club of Chile, which was incorporated July 4 of the same year. The first officers were: President, Don Enrique Phillips; vice president, Alejandro Weber; secretary, Don Armand Venegas; second secretary, Don Armando Fernandez; treasurer, Don Juan A. Maluenda V.; directors, Señors Ernesto Anguita, Manuel Barros B., Paul Furet, Joaquín Jélvez, Osvaldo Jiménez, Julio Kaulen O., Eduardo Molina Lavín, Bernardo Morales, Augusto Perrey, and Erasmo Vasquez. The present president is Ex-Minister of War Don Jorge Matte, the vice president, Col. Dartnell. The first chapter of its statutes expresses the object of the association, and the first three articles are as follows:

ARTICLE 1. An association is hereby founded which shall be known as the Aero Club of Chile, and shall have for its object the advancement of the art and science of aerial locomotion by all the means within its power.

ART. 2. The Aero Club of Chile will lend its assistance to any effort to diffuse knowledge of aeronautics, whether practical or theoretical; it will likewise hold conferences on the subject and promote through the press a public opinion in favor of the formation of civil schools of aviation subsidized by the state or individuals, and the directorate shall be empowered to obtain with the social funds or with loans authorized by a general meeting of members what money is necessary to rent or buy one or more appropriate sites for the construction of aviation fields and installation of equipment.

ART. 3. In order to facilitate the control and preserve a history of the development of aviation in our country, the Aero Club of Chile will make record of the things accomplished in behalf of aviation, and will lend its aid to any person or association requiring assistance for this object.

This club has contributed powerfully to the development of aviation. In March, 1916, the first Pan American Aeronautic Conference was organized, was attended by representatives from Argentina, Bolivia, Brazil, United States, Ecuador, Perú, Paraguay and Uruguay, and founded the Pan American Aeronautic Federation. It is interesting to note that on this occasion there came as delegate from the United States the forerunner of world aviation, the celebrated Brazilian, Santos Dumont.

The entrance fees to the aviation contest held by this club in 1916 in Viña del Mar were to increase the funds for the purchase of the first hydroplane for the Navy. In 1914 there had already been organized the first exhibition of aeroplane models, and in 1917 the first congress of balloon pilots was organized, the following receiving their "brevet": Señors Augusto Perrey, Roberto Walker, Marcos Davidson, Armando Venegas, Hernán Zañartu, Lisandro Santelices, Juan Gálves, David Fuentes, and Capt. Arturo Urrutia. One year later, in October, 1918, an exhibition of aeroplanes and automobiles of Chilean manufacture took place, showing the marked progress made by our constructors.

The direct result of all this stimulating effort and progress was the triumphs later accomplished by our military aviators. The crossing of the Andes over the peak of Tupungato with a height of over 5,000 meters marks two memorable and glorious events for national aviation. On the 12th of December, 1918, Lieut. Dagoberto Godoy made the flight across the ridge of the Andes, traveling 180 kilometers from Santiago to Mendoza in 1 hour and 23 minutes, and reaching a height of 5,400 meters. For this achievement Lieut. Godoy was awarded a prize of 50,000 pesos by Congress and advanced to the grade of captain, and the Aero Club presented him with a special medal. Again, on April 5 of the present year, on the National Independence Day, commemorating the battle of Maipo, in which the joint armies of Chile and Argentine fought for freedom against the royalist armies of Spain, Lieut. Armando Cortínez, of the School of Military Aeronautics, without previous permission or preparation (not even a compass) made the same flight over the same mountain peak as Godoy had done. The Government imposed a punishment on him for lack of discipline and sent a reprimand to him at Mendoza by wire at the moment when Cortínez was telegraphing the ministry of war to offer his explanations for the breach of discipline, which he said had been inspired by the patriotic desire to carry on that historic day a greeting from the Chilean people to the Argentine nation, and he requested permission to return by the same aerial route.

The whole country, awaiting the arrival of an Argentine military squadron, was filled with enthusiasm by the exploit of Cortínez. All classes petitioned the Government to waive the punishment imposed on Lieut. Cortínez and to grant him permission to make the return flight. The Government acceded to the popular requests, and on the 16th of April Lieut. Cortínez made the return flight, winning for himself the South American record for cross-mountain flight with an altitude of 5,700 meters. The return trip was also made without a compass, and the gasoline gave out after Cortínez had reached Chilean territory. He made his landing by volplaning down to the aviation field of the school, amid the wild enthusiasm of the nation, and covered our School of Military Aeronautics with glory. In the reception which his companions of the school gave in his honor, the English Maj. Huston, in toasting him, said: "There is no doubt that to accomplish such a feat one must use an English plane and have a Chilean heart."

As these lines are being written official announcement has been made of the crossing of the Andes at an early date by an Argentine military squadron, and the people of Chile are awaiting this new venture to return the courtesies and attentions showered on our military aviators Godoy and Cortínez by the neighboring Republic.

PAN AMERICA IN THE MAGAZINES

Teamwork Between America and Cuba has Paid Well for Both, is the title of an interesting article by John H. Allen, vice president of the National City Bank of New York, which appeared in the July number of *The Americas*. The salient features of this account of Cuba's prosperity and future possibilities are embodied in the following excerpts:

The fact that the National City Bank of New York is now operating 17 branches in Cuba and that present plans call for a total of 30 branches in that wonderfully fertile island before the close of the present year makes a discussion of the resources and possibilities of Cuba more than ordinarily interesting. The first foreign activity of the bank, incidentally, was in Cuba. The Bank of Cuba was organized in September, 1906, by interests representing the United States and Cuba, and this bank later became the nucleus for the system of branches which now covers the island from one end to the other. * * *

If any place in the world has been blessed by nature, that place is Cuba. Its soil is so fertile as to be apparently beyond the possibility of exhaustion. In the production of sugar, the island's principal source of revenue, no country in the world exceeds the opportunities for cultivation and ease in finding markets that the growers of Cuba have at hand. The principal business of the Cuban branches is founded on sugar and tobacco, with sugar greatly predominating; but careful work is being done to build up a diversified business and to assist the agricultural and commercial interests of Cuba in developing the resources of their country in such a way as to make the island economically independent.

Cuba came into its own when the devastation of the world war brought to an abrupt end the cultivation of beet sugar in the countries of Europe which formerly raised large quantities of sugar beets and maintained a market for their home product by an involved system of preferential tariffs, bounties, and embargoes. The growth in the production of Cuban sugar is one of the commercial romances of the world. From a total output of 1,000,000 long tons in the sugar year 1902-3, the yield has grown until it reached 2,600,000 tons in 1913-14, 3,000,000 tons in 1915-16, 3,446,000 tons in 1917-18, and with an estimated yield for the present crop of 4,000,000 tons. These figures show that the actual production increased 40 per cent during the war period, increasing Cuba's share of the world's sugar production from 11 per cent in the year just preceding the war to more than 22 per cent at the present time.

It is now estimated that approximately \$600,000,000 is invested in the Cuban sugar industry, including the plantations and mills, technically known as centrals, and of this vast sum Americans own about half. The fact that we control such a large share of the island's greatest industry has proved mutually satisfactory and favorable. * * *

As we have increased our investments in Cuba, so have the Cuban people turned to American goods for the vast supplies that they buy every year. Up to this time the rich returns of the sugar and tobacco lands have made it economically more desirable for Cuba to devote the major share of its attention to the cultivation of these favored crops and to look to us for many articles of food which we produce in large



Photo by Coleman & Co., Habana.

VIEW OF HABANA, CUBA.

Habana is one of the world's show places and the splendid prosperity of the past few years has enlightened this always brilliant city with its happy Latin life, its cultured tastes, and its demands for the best of everything in the world.



CATTLE RANCH AT SANTIAGO DE LAS VEGAS, CUBA.

In the plateau regions of Cuba there are great opportunities for cattle raising, and live stock of all kinds may be kept with the minimum of attention owing to the mild healthful climate and the luxurious growth of a vast number of forage grasses and crops.

amounts and which we are glad to trade to Cuba for her sugar and tobacco. There is a growing tendency toward the diversification of food crops, but in all probability Cuba will continue for many years to buy from the United States a large part of its staple groceries and general living supplies.

In 1913 the total imports of merchandise into Cuba from the United States formed but one-half of the island's total imports, but this figure was increased in 1917 to 68 per cent and the 1918 figures show a still more impressive mark. Our exports to Cuba have grown from \$69,000,000 in the fiscal year 1914 to \$236,000,000 last year, and will probably reach \$250,000,000 this year. We bought from Cuba in 1914 goods to the value of \$131,000,000. This figure has grown enormously, reaching \$264,000,000 in 1918 and may reach \$300,000,000 in the present year. Thus the total volume of trade that we will do with Cuba this year will exceed half a billion dollars.

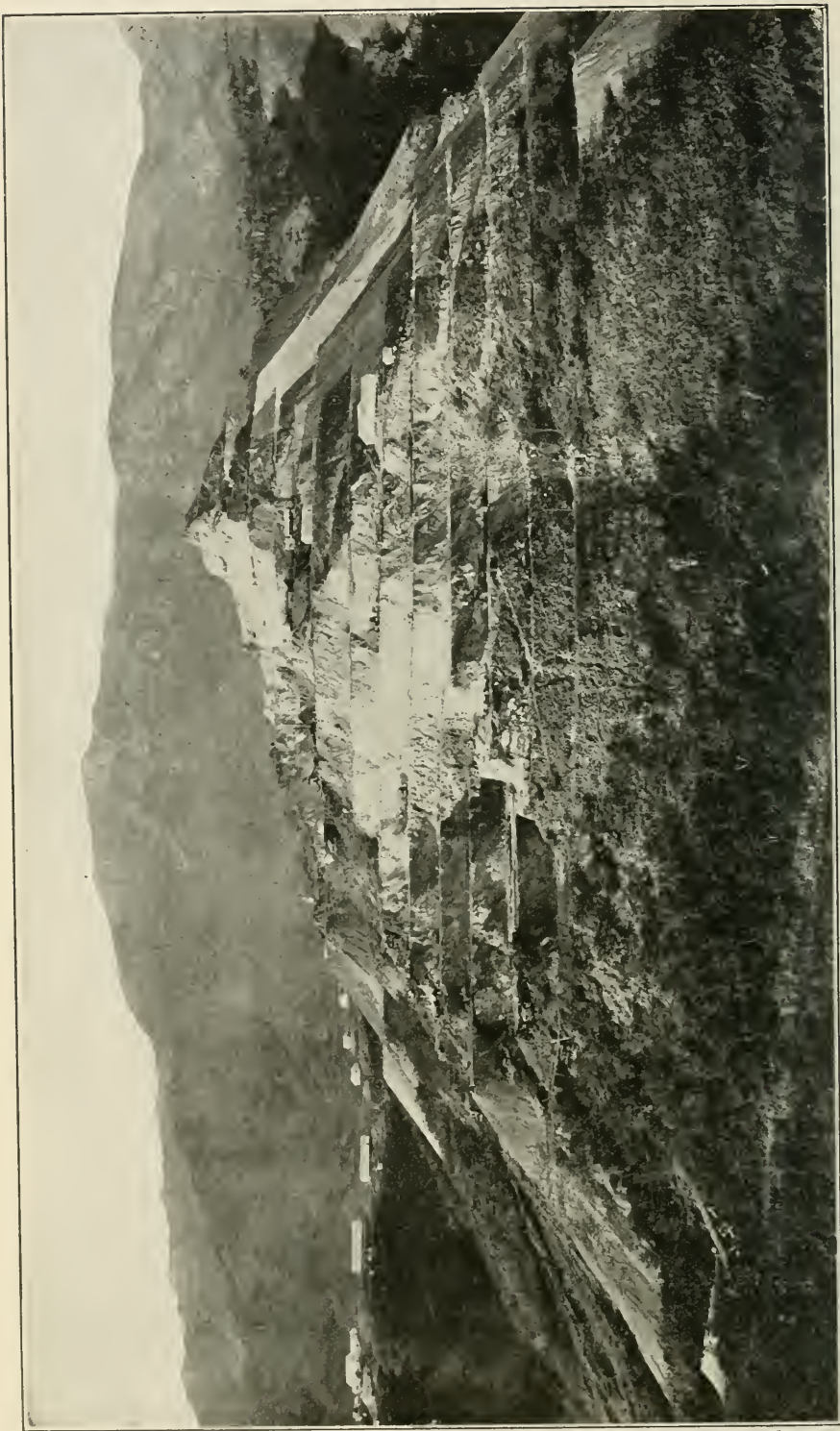
Such figures show the monumental financial task involved in financing our business with Cuba, especially in buying sugar bills and providing funds for paying off the growers of cane during the harvest season. It was to carry on its proper part of this task that the National City Bank planned and organized the widespread system of branches now approaching completion in the island. The results have already more than justified all the hopes that were placed in Cuba. Our branches there have solidified commercial relations between the two republics, have made friends of their business men and agriculturists and have contributed a strong factor to the banking machinery of the island.

Great as has been the development of Cuba, particularly in the sugar industry, the possibilities of the island have hardly been scratched. The great need has been the construction of railroads through the more sparsely settled sections of the island, where the land is almost incredibly rich, but where inefficient means of transportation and the absence of modern sugar mills have operated to prevent as rapid a development as would otherwise have taken place. Great areas of sugar land are still entirely without development, and it is no exaggeration to say that Cuba could double its present output of sugar within a decade and still have plenty of room left for the utilization of its other natural resources. The forests which once lined the north shore of Cuba are rapidly disappearing, and in their place have come vast fields of waving cane, but along the south shore the primeval conditions remain as they have always been, awaiting the hand of energy and capital to bring under the control of man millions of the most fertile acres on the face of the globe. * * *

Cuba is the land for the pioneer in the sense that pioneering must be used in the tropical and semitropical countries. The difficulties in the way of small enterprises are somewhat large, but for cooperative efforts, such as those of the great sugar and tobacco companies, the opportunities are splendid. So far as population goes there is still plenty of room for growth. The island, including the Isle of Pines, has an area of 45,881 miles, about the same as the State of New York, while its population of 2,628,000 is only one-sixth as dense as that of Porto Rico. If Cuba ever increases the density of its population like that of another great sugar-raising island (Java) it will support 40,000,000 human beings.

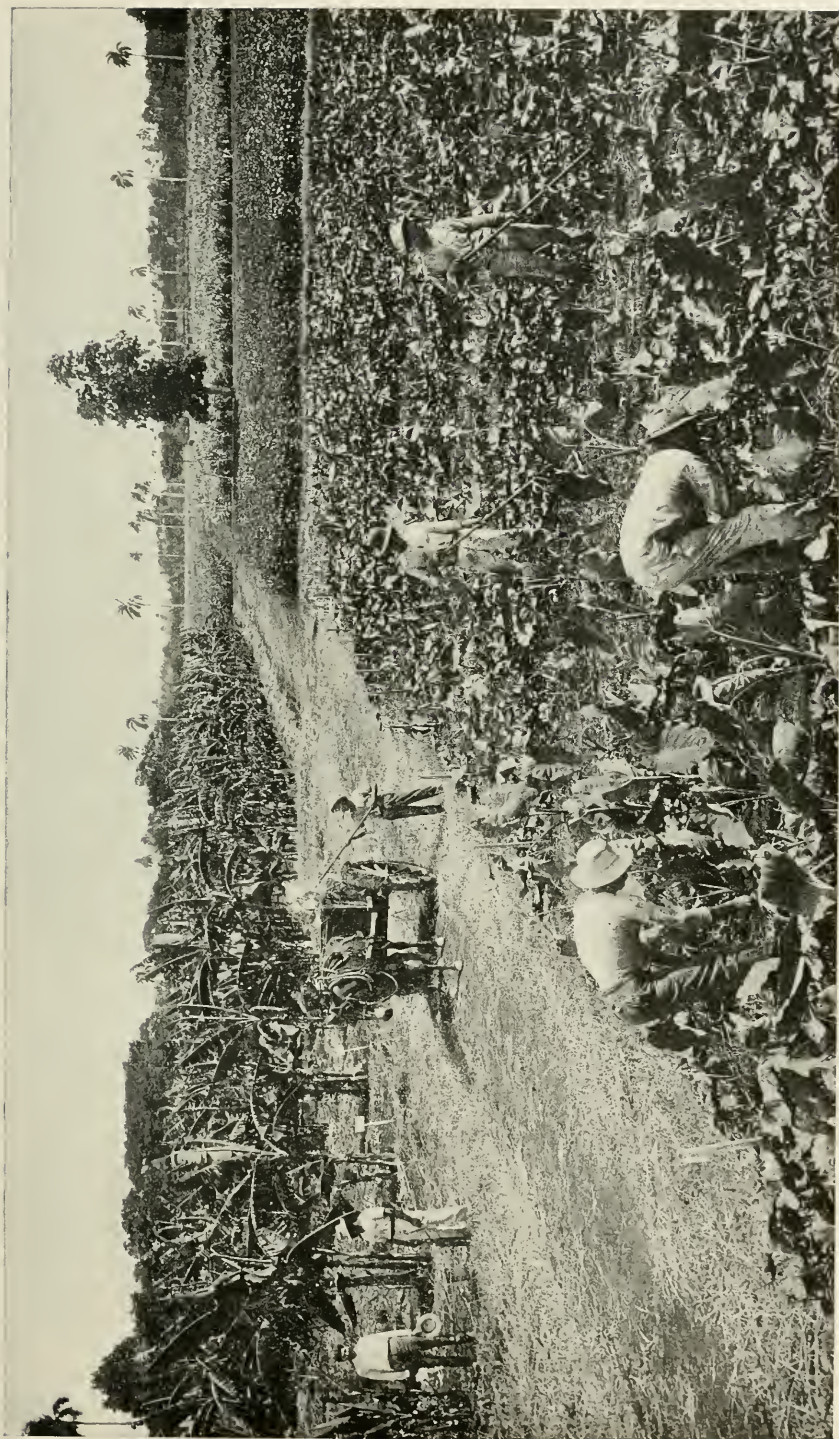
Sugar is such an absorbing topic when discussing Cuba that it is apt to overshadow the island's other crops and activities, but it is far from being the only important product. The tobacco grown in Cuba exceeds in flavor and price that grown anywhere in the world, and in recent years the value of the crop has approached \$50,000,000. Great development awaits Cuban tobacco, and, as in the case of sugar, large areas of land suitable for the growing of high-grade tobacco are still covered with the jungle, awaiting the hand of the settler.

In the plateau regions of Cuba there are great opportunities for cattle raising, and live stock of all kinds may be kept with a minimum of attention, owing to the mild, healthful, climate, and the luxurious growth of a vast number of forage grasses and crops. This industry has attained considerable importance as it is, but the possi-



IRON MINES, PROVINCE OF ORIENTE, CUBA.

Deposits of iron ore are among the richest of Cuba's natural resources. During the fiscal year 1916 Cuba exported ore to the amount of \$42,598 tons, valued at \$2,389,124.



TRUCK GARDENING IN CUBA.

The soil of Cuba is not only adapted to the growing of great staples such as tobacco and sugar, but garden vegetables are easily raised. Many American colonists in Santa Clara are engaged in the raising of garden truck.

bilities of development are very great and would save Cuba from the necessity of importing so large a part of its meat supply.

A concrete example of the richness of Cuba may be gained from the examination of any one of the various Provinces into which the political division of the island is cast. For instance, take Santa Clara, where the bank now maintains branches at Cienfuegos, the second city in Cuba, Santa Clara, Caibarien, and Sagua la Grande. This Province has an area of 8,250 square miles, about that of the State of Massachusetts, and its capital, Cienfuegos, has one of the finest land-locked harbors in the world, with a coast line of 45 miles.

It has such a range of soils that every crop suitable to Cuba's latitude may be profitably grown there. Sugar is the principal crop, but a particularly fine grade of tobacco is grown and the coffee raising industry is attaining considerable success in certain parts of the Province. There are quite a number of American colonists in Santa Clara who have engaged in the growing of citrus fruits and garden truck, with encouraging success. Rich pastures invite cattle raising and the live-stock industry is growing rapidly, but is still inadequate to the local demand. There are large tracts of land covered with valuable timber at various places throughout Santa Clara and its mountainous parts have large deposits of sulphur ore, the exploitation of which is just now starting on a scale that promises an important new industry.

An idea of the cosmopolitan character of the shipping at Cienfuegos may be gained from the list of ships clearing from the port in 1917. Of a total of 278 vessels, 111 were American, 57 British, 39 Danish, 4 Dutch, 1 Grecian, 2 Honduran, 1 Japanese, 2 Mexican, 54 Norwegian, 6 Spanish, and 1 Swedish. * * *

German merchandise formerly found a good deal of favor in this important section of Cuba and German exporters made unusual efforts to win and hold the business. This has now been entirely changed and the preference is everywhere for American-made goods. Particularly is this true in regard to cutlery, hardware, stationery, electrical supplies, toys, novelties, textiles, and notions, the very kind of goods Germany excelled in this trade.

Of Cuba's splendid climate, attractions as a winter resort, its well-paved roads, and comfortable railways, it is unnecessary to speak. Its capital, Habana, is one of the world's show places and the splendid prosperity of the past few years has enlivened this always brilliant city with its happy Latin life, its cultured tastes and its demands for the best of everything in the world. The Habana branch of the bank has been an exceedingly active one ever since it was first organized and the volume of its business has grown to such an extent that two subbranches have been established for the convenience of Cuban and American business men.

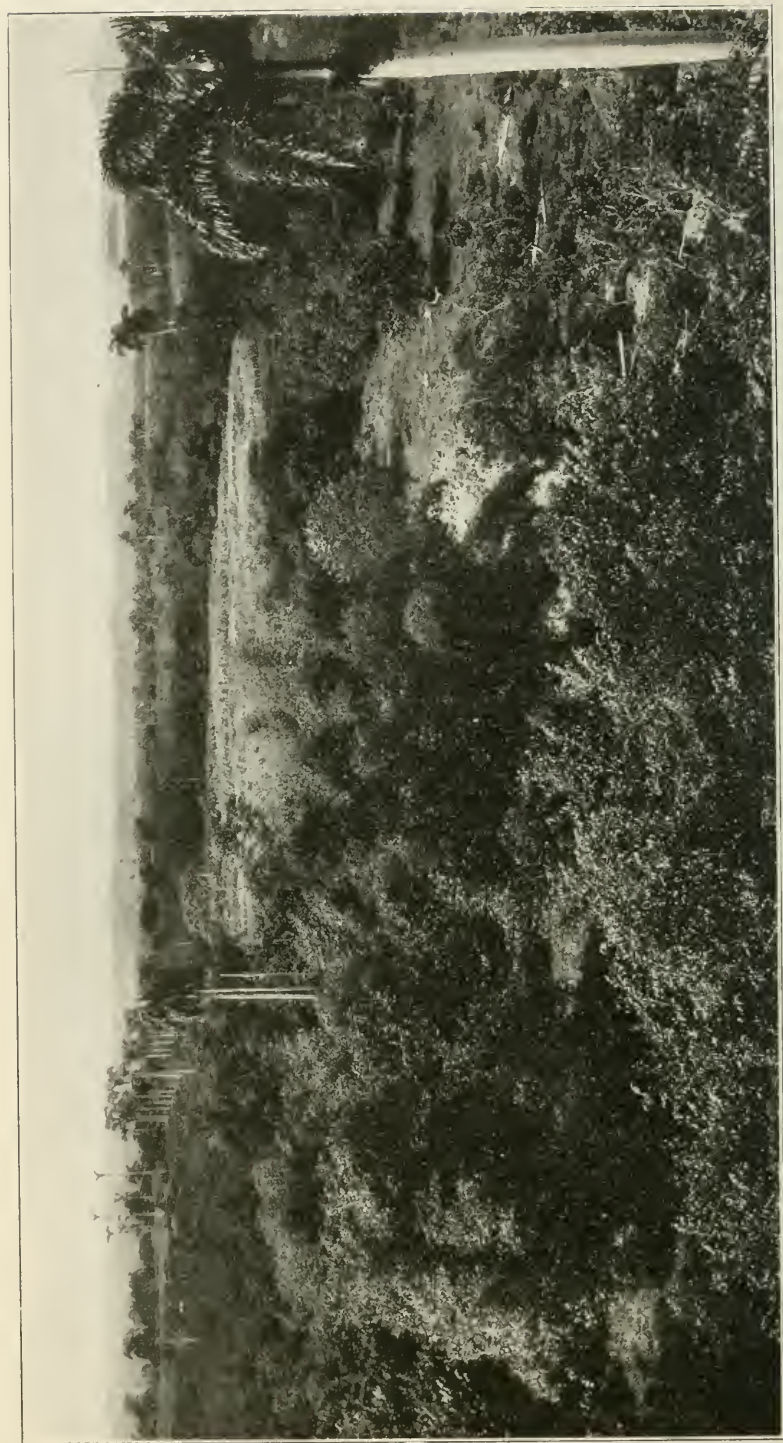
The Cuban branches now form the most important links in the banking service that is being built up by us throughout the Caribbean territory. Throughout all that richly endowed part of the world, where nature has placed within man's reach the securing of a living with a minimum of trouble and toil, a network of banking service that is distinctly American is now in existence. The results are already apparent. Not only has American business throughout Central America and the entire Caribbean region received the assistance of carefully trained bank men in carrying on export and import trade, but stability has been added to the business of the various countries in which we have established branches, with mutual advantage and profit to us and to our Latin neighbors.

Americans who had to secure their sugar on a rationing basis during the months we were in the war will have no difficulty in visualizing the importance to Cuba of the bountiful crops that have been produced and sold at high prices by the Cuban growers during the past five years. As the United States consumes more than a fifth of the entire sugar production of the world and only grows a comparatively small amount itself, it is clear that Cuba never has to look very far to find a market for its sugar crop. During the war this was especially true and the Government of the United States,



CITRUS FRUIT CULTURE IN CUBA.

Upper picture: Citrus fruit estate on the Isle of Fines, a Cuban possession. Lower picture: Citrus fruit and vegetable exhibit from La Gloria, Province of Camaguey.



LANDSCAPE SCENE IN CUBA.

Parts of Cuba are still but little impressed by the influence of man. Its soil is, to a great extent, virgin soil, and immense tracts of land are grown over by tropical vines and the palm tree.

through its emergency war machinery, arranged for the quick transportation of the Cuban crop, while the bankers of the country acted cooperatively in assisting the growers to finance their product.

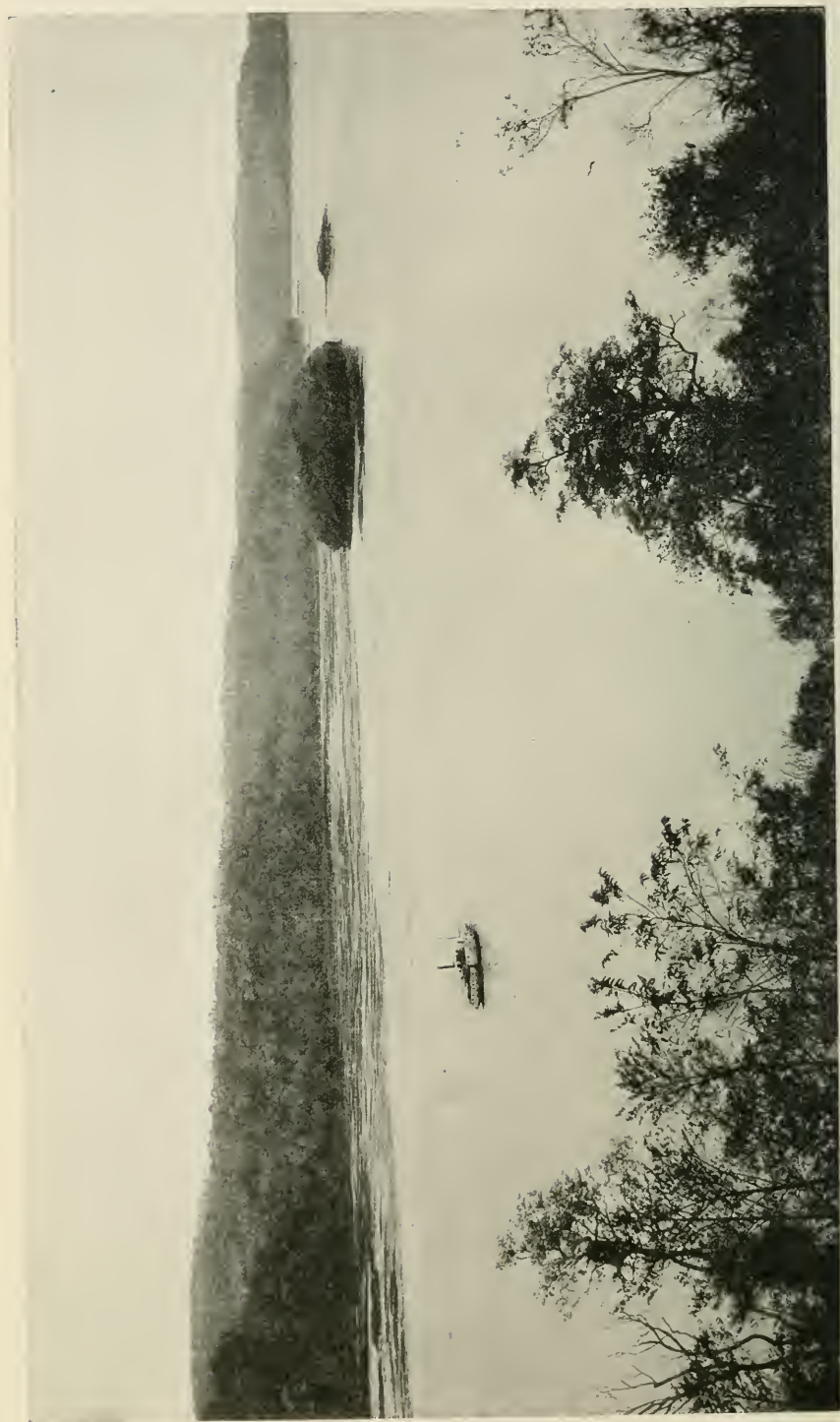
The cooperation secured at that time from all interests in this country and in Cuba showed how well it pays to work together. The necessities of the war brought the two Republics together as nothing else could and the action of Cuba's Legislature in declaring their country's interests in the war identical with those of the United States showed that true friendship exists. Under the progressive and intelligent leadership of the men selected by Cuba to direct its Government, the island has laid plans for a much greater development and prosperity than has been so far realized.

"Wood from Paraguay," by Percy F. Martin, F. R. G. S., in the British and Latin-American Trade Gazette of May 7, 1919, is a brief nontechnical description of the forestal wealth of that country. While Mr. Martin may not be a timber expert, he is an experienced and observant traveler, and his observations anent this source of supply for the world's increasing demand for commercial woods are well worthy of reproduction.

The following quoted paragraphs give the gist of his article:

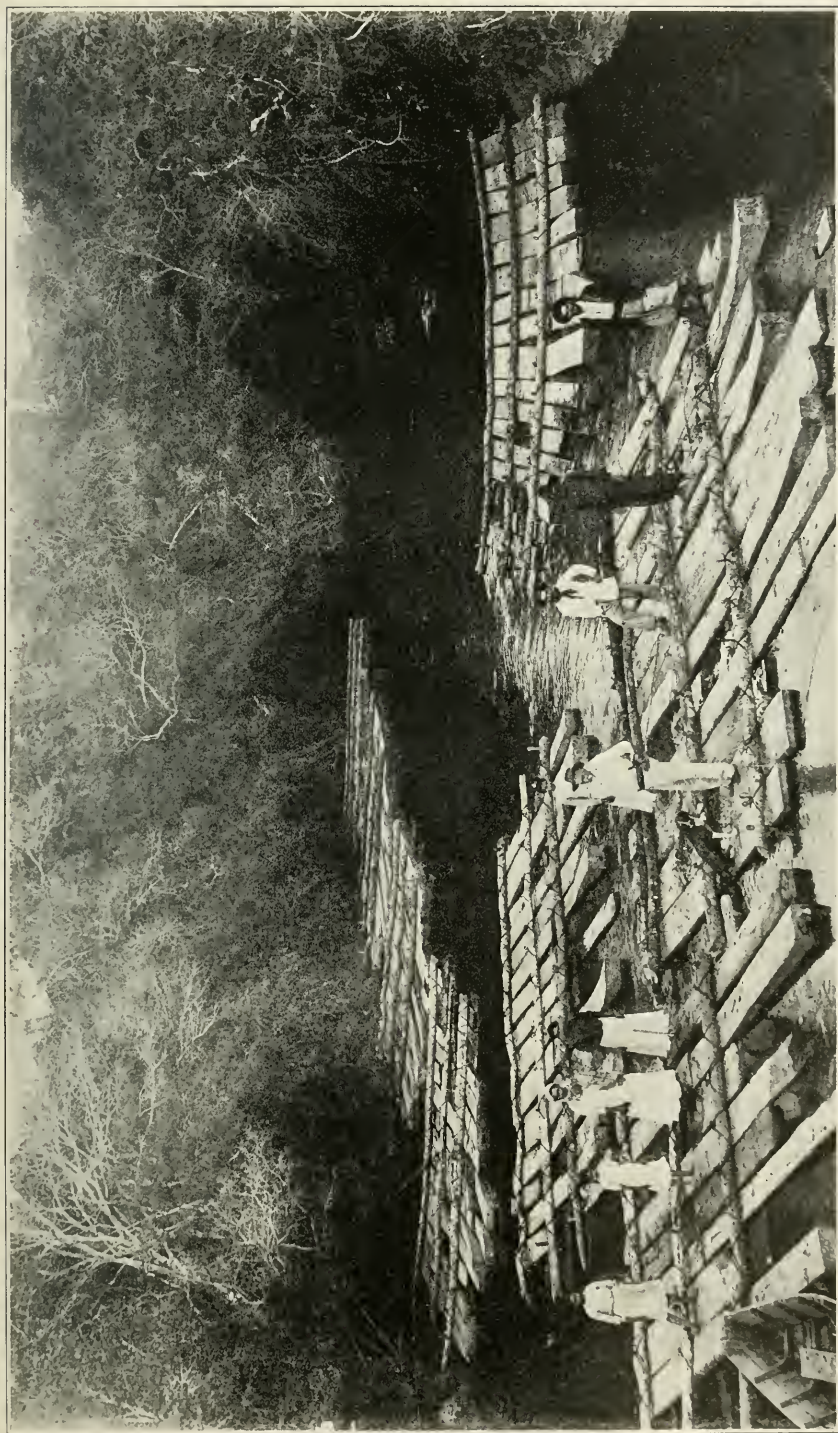
Paraguay is possessed of a considerable number of natural resources, the mere fringe of which has hardly been touched. The greatest wealth of the State undoubtedly lies in its forests, and the ever-increasing consumption of all classes of timber, which has caused dealers in lumber to turn their attention to South America, might find at least partial satisfaction in the vast timbered regions of Paraguay. Of recent years naturally endowed countries like this have taken measures to protect their valuable assets in timber, and the immense commercial value of Paraguay's virgin forests have been recognized far beyond the borders of that State itself. Unfortunately, so little exploration has taken place in this part of South America that no trustworthy statistics are available concerning the timber supplies. The country has never been properly surveyed, and it would be quite useless to attempt to arrive at any dependable estimate of the resources of this region.

Paraguay is divided by the river of the same name, which traverses it from north to south. These two sections of the Republic are of entirely different characters. The eastern portion extends to the banks of the river Parana, and forms the more elevated and better populated part of the country. This region is known as El Paraguay Oriental, or simply Paraguay, whereas the western section, stretching to the river Pilcomayo, is a flat, low-lying land, sparsely populated by a few nomadic tribes of Indians. This part of the country is known as El Gran Chaco, or El Chaco Paraguayo. It is unnecessary to give a complete list of the scientific names of Paraguay's timber trees. It should be sufficient to say that the area of the western section—the Chaco—which is approximately 200,000 square miles in extent, contains practically all those classes of trees to be found in the neighboring State of Argentina, as well as a great many of those which are met with in Brazil. In Paraguay, as in Argentina, the most important commercial timber produced in the country is the *quebracho colorado*. The tree, which is not particularly handsome in appearance, is found in rather less abundance in Paraguay proper, north of the Tropic of Capricorn. As pointed out in a previous article dealing with this tree as found in Argentina, the timber consists of dense hardwood of a red color, well known as a tannin agent in Europe, to which considerable quantities were formerly exported. To-day, however, the logs are not allowed to leave the country, although the product, in the form of tannin, is exportable. According to analysis, the logs provide an average of 24 per cent of tannin substance, and in order to economize freights several factories have



TIMBER LANDS ALONG THE UPPER PARANA RIVER.

Up to the present time only the timber along the waterways has been touched. At intervals along the Parana man has made the beginning of commercial development by clearing the woodland and erecting the sawmill.



TIMBER RAFTS ON A PARAGUAYAN RIVER.

The want of foreign capital accounts for the lack of transportation facilities with which to transport the lumber to market. Rafts constructed of some buoyant wood carry to market heavier woods used for cabinet making.

been established in Paraguay for the purpose of extracting the tannin which is subsequently bagged and shipped to Europe. The whole logs are used for construction purposes and for sleepers upon the railways, the extraordinary durability of the wood making it specially valuable for this purpose, as well as for wood-paving and similar enterprises.

There is another wood almost as hard to be found in close proximity in the Chaco. This is known as *palo santo*, or *lignum vite*. It differs from the *quebracho* inasmuch as it is of a dark green color, very resinous and scented. In the interior of the country, where *palo santo* grows in greater abundance, the Indians burn it as firewood, since the smoke has the property of keeping mosquitos and other insects at a considerable distance. In addition to *quebracho* and *palo santo*, Paraguay possesses several species of soft woods eminently suitable for the manufacture of paper. Probably the time is not far distant when pulp mills will be erected in or near the Chaco, and the large quantities of paper that are at present imported into Argentina from Europe and the United States will become greatly diminished in favor of locally produced supplies. Of palms, the only species of any commercial value is the *varunday*, or black palm, a large variety which grows to an average height of 30 feet, and is used both locally and in Argentina for telegraph and scaffold poles.

Perhaps the greatest portion of Paraguay's timber wealth is to be found in the densely wooded eastern section of the country, the superficial area of which has been comparatively estimated at not less than 91,000 square miles. Not only are these forests extremely beautiful to the eye on account of the large number of flowering trees which are found there, but a large variety of valuable commercial timber remains as yet untouched. Here may be found the *curupay*, the *urundaymi*, and *lapacho*, all woods of exceptional hardness, and especially suitable for the construction of bridges and other heavy structures where strength and durability are a necessity. There are likewise to be found therein large quantities of the lighter varieties of woods, such as the *cedro*, the *ibiraro*, and the *peterby*, all of which are in great local demand for the making of furniture and the handsome interior work so largely used in Paraguayan residences. The *cedro*, or so-called cedar, is more strictly speaking a mahogany, and is used largely in the manufacture of cigar boxes. The *ibiraro* is a close-grained, flexible wood which has been found to be peculiarly adapted to ship and boat building, and may be considered as a very good substitute for teak. Among other species not so much in demand may be mentioned the *tatum*, which is a yellow wood of hard, close grain, especially suitable for clothes boxes and so forth, as it is obnoxious to insects. The *palo de rosa* or rosewood, the *laurel negro*, or black laurel, and *el timbo* are hardly less valuable woods, although at present barely known outside of the local markets. The bark of several of the above-mentioned trees, particularly that of the *curupay*, has been found to yield excellent results as a tannin agent and is largely used locally for this purpose.

The want of foreign capital accounts for the lack of transport facilities, and until the Republic is better furnished in this respect any systematic development of its splendid timber resources upon an efficient scale can not be looked for. There is practically only one railway in the country, and although this is British, both in regard to its ownership and management, it has hitherto displayed singularly little enterprise. Up to now it has only been possible to work the timber situated within a short radius of this railway's track, or that to be found within easy haulage of some waterway provided by the principal rivers, the Paraguay or the Parana, or one of their navigable tributaries. Undoubtedly the Paraguay is the more important, as this is navigable all the year round for steamers of 1,000 tons capacity right up to and beyond Asuncion, which is the capital and the only port of the Republic. While nature has treated this country liberally enough in the matter of streams, it is not difficult to understand that but a very small percentage of the forests can be exploited by means of waterways.



LUMBERMEN IN PARAGUAY.

The picture represents a typical group of workmen found engaged in the lumber industry along the Paraguay, Parana, and their navigable tributaries.



Courtesy of Rodolpho Roth.

LUMBERING IN PARAGUAY.

Wood will, for many years, continue to be one of Paraguay's chief natural resources. In the upper picture are giant logs prepared for shipment to market. The lower picture shows the machinery used in loading the logs.

Railways alone can solve the question of making the most of the timber resources of the country. Even private enterprise, which of late years has been responsible for the laying down of a few short light lines, can effect but very little improvement. For many years to come the State will be unable to find the money to build any part of the extensive railway system which alone can bring permanent prosperity to the country; so far the return from the capital invested by foreigners has proved insufficiently attractive to create any particular desire to increase it. On the other hand, the Paraguayan Central Railway has latterly shown a little more enterprise, not so much in the direction of constructing additional trackage as in obtaining Government concessions to build. Some of these undoubtedly will mature, while in a few cases modest extensions of present trackage have been commenced. Nothing, however, has transpired, nor yet seems upon the point of transpiring, that will effect the long-neglected timber resources of Paraguay. To thoroughly exploit this valuable region something like 1,000,000 pounds sterling could be effectively employed. There is very little doubt that if this capital is not found in the United Kingdom, it will be eventually forthcoming from the United States, where a great deal more is known of the valuable resources of Paraguay, as of the South American States generally, than is the case in this country.

FURTHER NOTES ON COM- BINING ART AND MUSEUM EXHIBITS¹

IN the June, 1919, issue of the Bulletin there were described the remarkable exhibits now open to the public at the Chicago Academy of Sciences, and it will be remembered that they reproduced the region of the Calumet River of early times. Plants, animals, and scenery appear as they occurred in nature; and in describing the backgrounds, the subject was carried only so far as such achievements are attained by the artist in oils, grand examples of which may be studied in the American Museum of Natural History of New York City.

Mr. Frank M. Woodruff did not employ artists for his backgrounds, however, but accomplished his ends in a far more remarkable manner; and what he has succeeded in doing has probably never been undertaken before.

There are no fewer than 110 such groups as the one shown on page 683 of the June Bulletin. Each has a curved background 11 feet by 5; and these not only save an enormous amount of space, but impress the observer with the sense of being in the presence of the actual scenes

¹ By Dr. R. W. Shufeldt, Washington, D. C.



Courtesy of the Chicago Academy of Science.

A COMBINATION OF TAXIDERMY AND PHOTOGRAPHY.

The above is the reproduction of a photograph of one of the exhibits in the museum of the Chicago Academy of Science. The scene depicts the natural habitat of the animal and plant life characteristic of the Catumel River and Lake region near Chicago. The remarkable feature of the exhibit is that the upper half of the scene is a photographic presentation of a section of this region while the lower half, or foreground, is composed of artistically mounted animals, real earth, sand, shrubs, and plants, arranged by the taxidermist. Very close inspection is needed to reveal the line where the work of the taxidermist merges into that of the photographer.

reproduced and the living animals that at one time inhabited those regions.

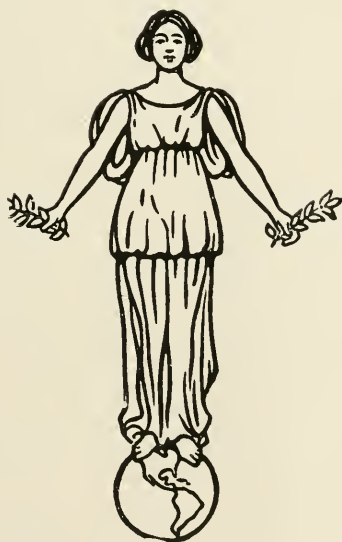
One of the best of these reproductions illustrates the present note: and if the reader will imagine a line drawn across the picture parallel to its upper border, and just clearing the ears of the old fox in the middle foreground, all above that line was done by photography, and all below by the taxidermist in the way previously described.

In a letter to the writer Mr. Woodruff says of one of these pictures:

The background is a photograph 72 feet long and 10 feet high * * *. I took a series of 8 by 10 views of the Dune Region, and enlarged each to 11½ feet by 10, and joined them with a smaller length of photograph where I could find a spot resembling the terminal of one scene and the beginning of the next one. The picture is colored with oil color, which can be rubbed in, and shows richly as well as transparent. Where the picture is joined the color is put on a little heavier, and perhaps a few leaves or a small tree painted in to hide the joining. As we could only get paper 40 inches wide, we had to overlap with a narrow margin three widths of photographic paper 40 inches wide and 11½ feet long, make an enlargement on this from our 8 by 10 plate and so on, joining the whole as you would match paper on the wall. * * * the next group will have the picture 96 feet long and 10 feet high.

A third and fourth group will be made encircling Chicago, showing animal, plant, and insect life and the physiographic features of our entire region * * *. When finished, we will have 336 feet of photographs 4 to 10 feet high.

Space will not admit of describing all these grand groups, much less the magnitude and complete success of the enterprise; they are simply marvelous in design and wonderfully realistic in conception.



AGRICULTURE, INDUSTRY AND COMMERCE

ARGENTINA.

The EXHIBITS OF LINEN and linen products at the 1918-19 exposition held in the Agricultural Museum in Buenos Aires covered 200 samples, 30 of which were awarded prizes.

The exports of FROZEN MEATS in May last show increases over the previous month. A comparison of the exports of these products during the first five months of 1919 with those of the same period of 1918 shows a considerable increase in 1919. From January to May, 1918, the exports of frozen meats consisted of 2,587,667 quarters of frozen wethers, 21,256 quarters of chilled beef, and 2,912,544 quarters of frozen beef. The exports in May last were 173,926 frozen wethers, and 475,925 quarters of frozen beef.

The Argentine foreign office has received an important report from the Argentine Minister in Stockholm concerning ARGENTINE MEATS in Sweden. The Government of Sweden, desiring to encourage meat imports from Argentina had the veterinary department of the Swedish army report upon their quality. The report shows that Argentine cold-storage meats are superior to Swedish meats in quality and nutritive value, and that the present prices of such meats are about half those obtaining in the markets of Sweden. The minister adds that the representatives of certain packers have informed the Swedish Government that they are disposed to cooperate in every way possible toward the sending of Argentine meats into Sweden by constructing cold-storage plants in the latter country and by placing at the disposal of Swedish buyers cold-storage steamers for the transportation of such meats.

The Argentine ambassador in Washington has informed his Government that, in compliance with a request of his embassy, he has conferred with the United States and French specialists concerning the utilization of the IGUAZU FALLS. These experts believe that it is possible, both from an economic and technical standpoint, to transmit electric power from Iguazu to Buenos Aires. Acting on said report it has been decided to appoint a committee to make the preliminary studies for the realization of this project. Furthermore, an important United States corporation has communicated with the Argentine Government concerning the granting of authority to industrially exploit said falls.

Honorio Maura y Gamazo, son of the celebrated Spanish statesman Antonio Maura, accompanied by Enrique G. Careaga, represent-

ing Spanish industrial capitalists, arrived in Buenos Aires in July last for the purpose of developing ARGENTINE-SPANISH TRADE. These gentlemen are considering a plan for the establishment of a cold-storage plant, and they also propose to acquire cereals and seeds for shipment to Spain.

According to information from the department of agriculture the AREA SOWN TO WHEAT in the Republic in 1919 is 8,870,000 hectares, as compared with 7,234,000 hectares in 1918.

As suggested by the Argentine minister in Brazil there will soon be held in Rio de Janeiro an EXPOSITION OF FINE ARGENTINE STOCK. The Argentine Republic is without doubt the country of South America which is most advanced in the breeding of stock, and some of the finest stock in the Western Hemisphere is found there. In the opinion of well-informed persons the raising of Shorthorn and Hereford cattle, race horses, and sheep on the ranches of Argentina is not excelled in England, the United States, and Australia. It is thought that the exposition referred to will tend to increase the demand for Argentine stock in Brazil, and will cause similar expositions to be held in Lima, Santiago, Montevideo, and other South American capitals.

BOLIVIA.

President Gutiérrez, in his message read to Congress on August 6, 1919, states that the EXPORTS OF BOLIVIA in 1918 amounted to 182,500,000 bolivianos (\$71,175,000) and the imports to 34,000,000 bolivianos (\$13,260,000)—a total of 216,500,000 bolivianos (\$84,435,000). Compared with the year 1917 these figures show an increase in exports of 24,751,946 bolivianos (\$9,653,259) and in imports of 519,169 bolivianos (\$202,476), or a total increase of 25,271,115 bolivianos (\$9,855,735).

THE NATIONAL RAILROAD SYSTEM extends over 1,786 kilometers, these figures including the new tracks laid in the past year; 371 kilometers of new track are now under construction.

The RAILROADS BEING BUILT BY THE GOVERNMENT are progressing satisfactorily. On the YUNGAS LINE the twenty-seventh kilometer has been reached, and the peak of the mountain range has been passed at kilometer 26; the excavating has progressed from kilometer 45 to 64, and it is hoped the track will soon be laid as far as Pongo. The estimates made as far as kilometer 68 call for more than 6,500,000 bolivianos, the amount invested in the enterprise.

On the 30th of June the engine pulled into the station of Betanzos on THE POTOSI-SUCRE RAILROAD, or as far as kilometer 50. The work of construction has been completed as far as Tecoya, 17½ kilometers farther on than Betanzos, from which point they are rushing the work to reach kilometer 100. The sums of

money turned over to the directors up to the 30th of June total 3,950,000 bolivianos.

In accordance with law of December 3, 1918, a technical commission has been organized to make the necessary surveys for the location of the COCHABAMBA-SANTA CRUZ RAILROAD, there being three possible routes from which to choose.

THE GOVERNMENT-SUBSIDIZED AUTOMOBILE SERVICE is running cars regularly between the following points: Atocha, Tupiza and La Quiaca; Potosi and Sucre; Sucre and Cochabamba; La Paz and Achacachi; and Cochabamba and Totora.

The decree of February 13 provides that the Department of Potosi, as now defined by its political boundaries, be made into a MINING DISTRICT, and that it should conduct its census under the laws of the 11th of April, 1900, and November 16, 1911.

BRAZIL.

The Banco Nacional del Comercio of Porto Alegre has just established a COMMERCIAL INFORMATION SERVICE to give accurate information regarding markets and foreign commercial firms to planters and manufacturing industries.

A new steamship company with a capital of 20,000 contos (conto, paper, = approximately \$275 U. S. gold), subscribed equally by Brazilian and Portuguese capitalists, has just been organized. The new company is known as the COMPANHIA TRANSOCEANICA LUSO-BRASILEIRA and will soon operate a line of steamers from Lisbon to Rio de Janeiro, with Recife and San Salvador as ports of call. Steamers will also run from Lisbon to Pará.

On the 12th of July THE FIRST NATIONAL EXPOSITION OF GRAINS was held in Rio de Janeiro under the auspices of the Permanent Commission of Expositions, headed by the minister of agriculture. The States of São Paulo, Minas Geraes, Pernambuco, Rio de Janeiro, Paraná, Santa Catarina, and the Federal District were all represented by noteworthy exhibits.

Every year shows an increase in the EXPORT OF ANIMAL PRODUCTS. From January to May of this year 79,625 tons, valued at 124,455 contos, paper, were exported, compared with 21,438 tons, valued at 21,070 contos in 1913, the last year before the war. Of this sum 8,627 tons, valued at 16,598 contos, represented lard, and 13,450 tons, worth 21,631 contos, preserved meats. The average value per ton has increased considerably, since in 1913 it was 1,069 milreis (milreis=about \$0.275 U. S. gold) and in 1919 it is 1,608 milreis.

By decree of the president of the State of São Paulo, June 25, approval was given to the terms of the agreement of the 10th of July, 1912, made between the States of São Paulo and Minas Geraes

relative to the EXPORT OF COFFEE FROM MINAS GERAES through the port of Santos.

The figures on the COFFEE CROP OF 1918-19 OF SANTOS were as follows: In transit, 7,403,328 sacks; entries, 7,397,560 sacks; sent by rail, 8,108,607 sacks; shipped by sea, 8,085,627 sacks; stock on hand, including coffee of the State of São Paulo, 4,950,689 sacks; foreign shipments, 7,855,075 sacks; shipments by coast steamers, 28,262 sacks.

According to official records the EXPORTATION OF SUGAR in the first three months of the present year amounted to 14,322,246 kilos valued at 10,958 contos. The volume of sugar export through Brazilian markets is shown in the following descending order: Pernambuco, 12,521,690 kilos, worth 9,260 contos; Maccio, 1,020,000 kilos, worth 788 contos; Bahia, 348,569 kilos, worth 341 contos; Rio de Janeiro, 333,820 kilos, worth 367 contos.

According to forecasts made by the food administration of Brazil, the WHEAT CROP of the States of Parana, Santa Catharina, and Rio Grande do Sul, will be 350,000 tons of which 200,000 will come from Rio Grande do Sul.

There are 202 COTTON-TEXTILE FACTORIES in Brazil, employing 78,186 operatives, 50,449 looms, and 1,500,700 shuttles, whose production is valued at 251,183 contos de reis.

In accordance with a provision of the department of agriculture a COFFEE EXCHANGE is to be established in Rio de Janeiro similar to the ones at Santos and São Paulo.

In a place called Mutuns, near the town of Ilheos, State of Bahia, RICH OIL FIELDS have been discovered, which will doubtless be developed extensively, as they are convenient to the railroad.

THE VALUE OF EXPORTS from the country for the first four months of the year amounted to 747,008 contos, coffee being the principal product exported.

The government of the State of São Paulo will pay Japan 2,500 yen (yen=\$0.4985) for JAPANESE WHEAT to be used as seed for experimental purposes by the farmers of that State.

THE LUMBER INDUSTRY has greatly increased in the State of Para, as the exportation of lumber in 1913 amounted to 18 contos (conto=about \$275 U. S. gold), while in 1918 it went up to 945 contos, now being one of the principal businesses of the State.

The Review of Commerce and Industry of São Paulo estimates the NATIONAL COTTON CROP FOR 1918-19 to be 1,600,000 bales of 80 kilos each, the production of the States being as follows: Pernambuco, 360,000 bales; Rio Grande do Norte, 260,000 bales; Parahyba, 240,000 bales; São Paulo, 235,000 bales; Ceara, 200,000 bales; Bahia, 60,000 bales; Maranhão, 65,000 bales; Piahy, 36,000 bales; Alagoas, 40,000 bales; Minas Geraes, 30,000 bales; Sergipe, 35,000 bales; Rio de Janeiro, Esperitu Santo, and Para, 45,000 bales.

During the first three months of the year 3,572 tons of GASOLINE, worth 2,784 contos paper, and 26,096 tons of KEROSENE, worth 111,529 contos paper, were imported by Brazil.

CHILE.

According to the message of the President of Chile, Señor Don Juan Luis Sanfuentes, published in La Revista Comercial, the foreign trade for Chile for the year 1918 was: Imports, 436,074,065 pesos gold; exports, 799,625,417 pesos; total, 1,235,699,482 pesos. This was an increase in the total over the preceding year of 168,333,427 pesos, about equally divided between imports and exports. Expressed in United States gold the imports for 1918 were, \$159,167,034; exports, \$291,863,277; total, \$451,030,311.

In the middle of July THE AUTO TRUCK SOCIETY was formed in Valparaiso. They will appoint a committee to see to improvements to be made on the streets used by these vehicles.

With a capital of 1,500,000 gold pesos (peso worth 18 pence), under the name SOCIEDAD INDUSTRIAL Y FRIGORIFICA DEL SUR, a new stock company has been formed in Osorno to pack meats, manufacture fertilizers, and cure hides on an extensive scale.

It is considered of prime importance for the future of the nitrate industry that all the nitrate companies join the ASSOCIATION OF NITRATE PRODUCERS, incorporated July 8 by decree of the department of justice. The Treasury Department has appointed a commission to bring about cooperation between the different companies and complete the organization of the association.

The firm "Mutua Comercial" of Valparaiso has signed a contract with the Ecuadorean Government to operate a line of MONTHLY FREIGHT AND PASSENGER STEAMERS from Guayaquil to Chilean ports. The service has already begun.

According to reports from the office of statistics THE CROPS OF THE PRESENT YEAR will be as follows: White wheat, 5,267,483 kilos; summer wheat, 608,562 kilos; rye, 48,789 kilos; barley, 865,885 kilos; oats, 471,740 kilos; beans, 617,519 kilos; chick peas, 27,025 kilos; green peas, 178,929 kilos; potatoes, 2,658,549 kilos; corn, 432,236 kilos.

In 1918 THE TRADE BETWEEN CHILE AND ARGENTINA amounted to the sum of 16,978,047 gold pesos, Argentine money. Of this, 8,343,661 pesos were the imports and 8,634,386 pesos the exports. The balance was in Argentina's favor for 290,725 pesos. These figures show a considerable increase over those of the previous year, when the imports were only 3,732,224 pesos and the exports 4,364,991 pesos, Argentine money.

The President has approved the articles of incorporation of the NATIONAL STEAMSHIP CO., just started in Chile with a capital of £165,000 sterling.

Official approval has been given to two new **COMPAÑÍAS NACIONALES DE SEGUROS** recently organized in Valparaíso. One branch, known as the Territorial, has begun to write fire and marine insurance and to issue endowment or savings policies, and has a capital of a million pesos. The other company, known as *La Confianza*, has a capital of 1,600,000 pesos.

According to the *Revista Comercial*, the following customs duties on the tariff lists have been suspended for the years 1919 to 1921, inclusive: Part 1, cows, 10 pesos per head; part 2, steers, 16 pesos per head; part 3, sheep, 2 pesos per head. While the suspension of these duties is effective, the import tax to be levied according to article II of the customs tariff on cattle or sheep on the hoof entering the country through a seaport or mountain pass will be reduced 50 per cent. This same decree prohibits **THE EXPORTATION OF STOCK ON THE HOOF**.

COLOMBIA.

Presidential decree No. 1225 of June 20, 1919, regulates the **DEVELOPMENT OF THE OIL FIELDS** and provides for the compilation of statistics on oil. According to the decree the Government will, through the department of public works, exercise the right of granting or withholding concessions to dig oil wells. The grants will be nontransferable and valid only when in the hands of the individuals or corporation to whom they were granted by the Government. Some of the provisions of the decree mentioned are the following:

For any development, large or small, on private or Government lands to locate oil fields it shall be necessary to have previous permission from the Government. All individuals or companies who are temporarily or permanently occupied in the development of oil in any way must fulfill the following conditions: They shall inform the Government, through the department of public works, of the work which they are about to begin, or have already begun, and give a report on the result of their explorations; they shall send the Government labeled samples of the oil discovered and a map of the property under development; they shall state whether the explorations are being conducted on private property or the property of the explorers, on unclaimed land, etc.; that the department of public works will grant the concessions at the convenience of the Government, but the granting of this concession or the fact of having commenced operations will not give to the concessionaire nor to the prospector any right nor any claim to rights on the property. The term of the concession will be for one year, without let or hindrance, effective from the date of the concession. The extent of property may be from 10,000 to 30,000 hectares, according to the rating given by the department, in reference to locality, etc. The work entailed by the decree will be under the bureau of mines, department of public works.

A presidential decree issued the middle of July authorizes the **EXTENSION OF THE RAILROAD OF THE NORTH** from Nemocon to Chiquinquirá.

The value of the **COFFEE CROP** of the Department of Caldas for the present year is estimated at \$8,000,000.

LARGE COPPER AND IRON DEPOSITS have been discovered in the municipality of Ataco, Department of Tolima.

The latter part of July work was begun on the laying out of a RAILROAD FROM SANTANDER TO TIMBA in the Department of Cauca. The department is building the road.

The middle of July the Department of Valle established in Cali A DEPARTMENTAL BUREAU OF AGRICULTURE. This bureau will have branches in the Provinces, which may in turn establish municipal branches.

In the early part of July work was begun by the departmental governor of Santander on the EXTENSION OF THE RAILROAD FROM PUERTO WILCHES TO BUCARAMANGA.

After having visited several departments of the Republic a CHILEAN COMMERCIAL MISSION arrived at Bogota about the middle of July. The mission was composed of Senores Victor Schneider Veraga and José M. Silva Plazas, whose purpose is to make a careful study of the advantages offered by this country for developing trade with Chile.

According to figures just published on the development of the TOBACCO INDUSTRY in the Department of Santander, one of the principal industries of this part of the Republic, 2,328,340 packages of cigarettes and 155,731,985 cigars were manufactured. Of the cigars, 61,457,197 were ordinary quality, 66,989,889 medium, 17,893,881 fine, and 9,391,018 extra fine. The tobacco-producing regions of Santander are the following: (a) In the Province of Bucaramanga, the plantations of the Ponce River, Surata, Rionegro, Alto Lebrija, Quebrada de la Iglesia, and the valley of the Isla in the jurisdiction of the municipalities of Bucaramanga, Giron, Florida, Rionegro and Lebrija, whose product is known as TABACO DE GIRON and is preferred for cigars; (b) the Province of Zapatoca, which produces a very mild tobacco used for cigarettes; (c) the meadows of the Ponce River in the Province of St. Gil; (d) valley of the Suarez River in the Province del Socorro. From this department comes the supply of cigars and cigarettes for the Atlantic coast, Boyaca, Santander del Norte, Cundinamarca, Antioquia, and the State of Tachira in the neighboring Republic of Venezuela.

CUBA.

According to the figures of the board of fisheries of the department of agriculture, the AMOUNT OF FISH CONSUMED IN HABANA, from June 1, 1918, to June 30, 1919, was 11,761,253 pounds, representing a value of 1,941,863 pesos; adding to this the value of the shellfish, turtles, and mollusca, the total is 2,041,031 pesos. Compared with the figures of the previous year, a decrease of 138,276 pesos is shown in the consumption of fish for the year just given.

In the same year 92,725 pounds of frozen hake, cod, and mackerel were imported direct from New York for Habana hotels.

Newspaper reports state that the CUBA CANE-SUGAR CORPORATION has completed the sugar-crop season with a production of 4,318,000 sacks, last year's production being 3,600,000. It is hoped that this year's profits will exceed those of the previous season, which were \$7,390,603.

A presidential decree of August 1 fixes the prices of ARTICLES OF PRIME NECESSITY—food, clothing, and medicines—so that the profit shall not exceed 10 per cent, and lists of prices shall be posted the first of each month and can not be changed before the 16th of the month.

A LARGE FACTORY FOR CANNED GOODS known as the "Criolla" has been started at Surgidero de Batabanó.

During the past year 2,292 MERCHANT VESSELS entered the port of Habana, as against 2,481 of the previous year.

According to Cuban newspaper notices Uruguay has become a MARKET FOR CUBAN LIQUORS. In July two schooners, one Spanish and one Cuban, loaded with Cuban wines, left Sagua la Grande and Habana bound for Montevideo.

At the suggestion of the department of agriculture the president issued a decree preventing the IMPORTATION OF SUGAR CANE from any country whatever, excepting only cane sent to the department of agriculture for purposes of experiment.

The United Railroad Co., of Habana, and the Cuba Railroad Co. have decided to establish an EXPRESS-TRAIN SERVICE FROM HABANA TO SANTIAGO DE CUBA. Rolling stock has already been ordered. Trains will be made up of two first-class coaches, one third-class coach, one diner, one sleeper, and one baggage car. Trains will make fast time and it is calculated that the run between the two points can be made in six hours less than the schedule maintained by the mail train.

The Cuba Railroad Co. is to construct a BRANCH LINE 11 kilometers long. It will start from the Fomento-Casilda line and run to Manicaragua.

The Japanese company "Osaka Shosen Kaisha" has recently established a direct LINE OF STEAMSHIPS between the ports of Yokahama and Habana, making the trip via the Panama Canal, with Cienfuegos and Santiago as ports of call. The inaugural trip was made by the steamship *Panama Maru*, which completed the voyage in 68 days, arriving at Habana on August 13 with a cargo of 51,000 sacks of rice, 2,020 bolts of silk, textiles, and fancy articles.

A DIRECT LINE OF FREIGHT STEAMERS was established the last of August between the ports of Habana and Buenos Aires. The new line is equally beneficial to both countries, since Argentina

exports large quantities of jerked beef, corn, and other grain to Cuba, which in turn exports leaf tobacco, rum, and Cuban brandy to meet large Argentine demands.

Presidential decree of July 25 regulates the DRUG AND MEDICINE TRADE, providing that only legally licensed pharmacists or druggists established in the Republic having public or private offices, or connected with hospitals, infirmaries, clinics, or other establishments devoted to the care of the sick, shall be allowed to manufacture or import certain alkaloids and salts enumerated in the decree.

The President has appointed Señor Miguel González de Mendoza to the post of commercial envoy to go to France, England, Belgium, and other countries to make a STUDY OF THE PRESENT STATE OF COMMERCE AND THE INDUSTRIES in relation to the products of Cuba, so as to obtain mutual benefit from commercial relations between Cuba and European countries and secure new markets for Cuban goods.

DOMINICAN REPUBLIC

The official Gazette publishes, under date of July 23, the entire text of the LAW ON THE CONSERVATION AND DISTRIBUTION OF WATER IN ARID REGIONS formulated by the military government on the 19th of July.

In order to give a practical demonstration to the farmers of the results that may be obtained from the planting and cultivation of corn in the Republic, on the 1st of July a CORN DAY was held in the town of Cotuí and specially selected ears of corn were exhibited.

According to official figures relative to SHIPPING in 1918, 863 ships, with a tonnage of 618,567, entered and sailed from the ports of the Republic as against 1,168 ships, with a tonnage of 1,006,511, during the previous year. According to nationality, the classification of these vessels was as follows: American, 508; English, 50; Norwegian, 16; French, 14; Spanish, 2; Cuban, 47; Dominican, 175; other nationalities, 51. Of the ships arriving and sailing during 1918, 624 were steamers and 239 sailing vessels.

During 1918 the COASTWISE TRADE was carried on by native ships in competition with foreign ships. The following entries of foreign ships in ports of the Republic were registered; Foreign ships, 365, with 486,266 registered tonnage, of which 82 were sailing vessels and 283 steamships. According to the classification of the customs they carried in coastwise trade 45,347 packages, of which 11,061 were foreign products and 34,286 native products. THE NATIONAL VESSELS which carried on the same coastwise service registered 7,658 port entries, of which 6,931 were sailing vessels and 726 steamers. The native shipping carried 1,227,209 packages, of which 212,451 were foreign products and 1,014,758 native products. Sailings in the different national ports were registered as 7,572 ships,

of which 6,847 were sailing vessels and 725 steamers. Comparing these figures the grand total of national and foreign ships entering and sailing from ports of the Republic and running in coastwise trade were: Sailing vessels, native, 6,931; foreign sailing vessels, 82; native steamers, 727; foreign steamers, 283; total, 8,023, ships. The tonnage registered at the various native ports was as follows: San Pedro de Macoris, 2,767 ships, with 226,874 registered tonnage; Sánchez, 549 ships, with 97,387 tonnage; Puerto Plata, 787 ships, with 96,371 tonnage; and Santo Domingo, 854 ships, with 79, 130 tonnage.

ECUADOR.

In connection with the celebration of the anniversary of national independence, on August 10 last, an agricultural and industrial EXPOSITION, organized by the National Society of Agriculture, was opened with a large number of persons in attendance. In order that the exposition might be as successful as possible and have on exhibition a large number of products from different parts of the country, the executive power granted to each exhibitor the right to send free, by post or by rail, up to 25 pounds of each kind of grain or other agricultural and industrial product. There was also held in Quito on the same date an exposition of boots and shoes. Displays of fine shoes, lasts, domestic tanned leather, etc., were made.

Work has begun on the installation of the large machines received from England and the United States for use in the COTTON FACTORY established recently in San Juan de Chillo. It is believed that the operation of this factory will not only stimulate the manufacture of cotton fabrics in Ecuador, but will also encourage the cultivation of cotton in the Republic.

Toward the latter part of June, 1919, a factory for the manufacture of CIGARETTES AND MATCHES was opened in Quito, as well as a factory for the production of alcohol from potatoes. Both these industries give promise of becoming very productive.

An executive decree of July 5 last provides for the establishment of PERMANENT EXHIBITS of Ecuador's agricultural and manufactured products in the consulates of the Republic. These exhibits are for the purpose of propaganda. They are entirely under the control of the consuls. The principal articles on exhibition are cacao, coffee, rubber, tobacco, vegetable ivory, lumber, chocolate, and toquilla straw hats, known commonly in the market as "Panama" straw hats.

GUATEMALA.

A Guatemalan agriculturalist has patented a MACHINE TO DRY COFFEE, to be known as "Coffee dryer, new model, Myares." The inventor claims the new invention to be more economical and advantageous than any now in use for the same purpose.

Presidential decree of June 29 approves the contract made by the Department of Public Works with Mr. Summer Farnham Shaw to survey and locate a RAILROAD LINE to run from Villa de San Filipe, Department of Retalhuleu, to the city of Quezaltenango. Mr. Shaw has promised to carry out the survey under his personal supervision, and is to receive the sum of \$50,000 American money from the Guatemalan Government in two payments.

THE SOCIETY FOR MUTUAL AID OF THE COMMERCE OF GUATEMALA named the following executive committee for the next term of office: Director, Señor Alberto Nicolle; treasurer, Señor Eduardo Torres; secretary, Señor Salvador Cobar.

HAITI.

According to advices received from different points in the country this year's CORN CROP promises to be a large one; harvesting began in the early part of August, and already large quantities of corn have been received in Port au Prince.

MEXICO.

Statistics just published by the "Boletin del Trabajo" (Labor Bulletin) of the Department of Industry and Commerce show that there are at the present time 1,226 TOBACCO FACTORIES in the Republic distributed by States as follows: Guerrero, 27; Aguascalientes, 22; Campeche, 2; Guanajuato, 221; San Louis, 70; Durango, 13; Colima, 8; Mexico, 5; Sinaloa, 38; Chihuahua, 12; Nuevo Leon, 21; Yucatan, 4; Federal District, 32; Michoacan, 95; Oaxaca, 20; Veracruz, 122; Hidalgo, 11; Coahuila, 59; Puebla, 43; Zacatecas, 13; Jalisco, 76; Sonora, 80; Tamaulipas, 129; Lower California, 3; Queretaro, 19; Tlaxcala, 16; Tepic, 44; Chiapas, 1; and Tabasco, 20.

Under a decree of July 24 last the governor of the State of Yucatan signed a law passed by the State legislature on July 22 providing for the free COMMERCE OF HENEQUEN and authorizing the regulating company and the planters to rescind the contracts made in accordance with the law of 1915 concerning the control of henequen by that institution.

The bureau of agriculture recently received considerable quantities of BUCKWHEAT AND CASTOR BEANS, which will be sold to agriculturists for seed purposes, in view of the fact that buckwheat produces an excellent quality of flour, and from castor beans a fine quality of lubricating oil for the use of airplanes is extracted as well as oils for the manufacture of soaps, perfumes, etc.

According to data published in the Mexican press the production of ores in the State of Chihuahua in 1918 was very large, and notwithstanding that many mines were closed down, still the EXPORTS OF ORES from that State to the United States during the year aggregated 14,830,000 kilos.

Early in July last the first AUTOMOBILE manufactured in Mexico reached the federal capital from the factory in Monterrey, State of Nuevo Leon. This machine stood a severe test on the highways between Monterrey and Laredo without suffering the least imperfection. The factory is equipped for the manufacture of 2,500 automobiles annually.

Press reports state that the cultivation of TOMATOES has increased considerably during the last few years in the State of Sinaloa. The surplus crop is exported to the United States.

The consul of the Argentine Republic in Mexico has informed the Argentine press that the Argentine Government has contracted for 300,000 barrels of PETROLEUM from the Tuxpam and Tampico districts. Part of this purchase was shipped from Mexican ports to Buenos Aires in July last.

The Department of Fomento has acquired drills with which to sink ARTESIAN WELLS in different parts of the Republic. These wells are to be drilled for the purpose of aiding and encouraging agriculture.

Fifty kilometers of the RAILWAY under construction between the cities of Durango and Mazatlan have been completed. Work on this road is being actively carried on and it is thought that the entire line will be completed and opened to traffic toward the latter part of this year.

The Yucatan railways, which until recently used wood as a fuel, have decided to use PETROLEUM on the line from Merida to Progreso. Formerly a locomotive consumed 60 pesos worth of firewood in the trip between these places, while now the journey is made quicker and with an expenditure of but 15 pesos for petroleum.

NICARAGUA.

The FOREIGN TRADE of Nicaragua for the year 1918, in values, amounted to \$13,684,743, a gain of \$1,316,419 as compared with 1917. There was a decrease in imports of \$463,265—from \$6,393,068 in 1917 to \$5,929,803 in 1918; and an increase in exports of \$1,779,684—from \$5,975,256 in 1917 to \$7,754,940 in 1918, together showing a net increase as above.

The chief countries of export were: United States, \$6,412,921; Mexico, \$965,977; Panama, \$90,143; and Canada, \$79,850.

The principal articles of export were: Coffee, \$2,249,056, all of which, except about \$26,000 worth, was exported to the United States; cabinet woods, \$1,431,640, nearly all to the United States. The chief cabinet wood was mahogany, accounting for more than 90 per cent of the total exports. Cedar, guayacan, and genizaro accounted for nearly all the remainder. Gold, \$1,245,484, in bars, amalgams, concentrates, precipitates, etc., the total to the United States. Sugar, \$742,077, of which \$642,871 to Mexico, nearly \$80,000

to Canada, and about \$19,000 to Panama. Bananas, \$535,042, all to the United States. Hides and skins, \$316,332, all, except less than \$100, to the United States.

There was an increase in the value of coffee exported of nearly one-half million dollars as compared with the preceding year; an increase in the value of cabinet woods, of over \$125,000; in gold, of \$320,000; and in sugar, of over \$500,000. There was a decrease in the value of hides and skins exported, of over \$206,000.

The exports to Mexico, amounting to 12 per cent of the whole in 1918, was entirely a new trade, and was due to the export of sugar as above, and of beans, corn, and lard. The export of corn to Mexico amounted to \$208,969.

The principal countries of import were: United States, \$4,630,457; United Kingdom, \$596,809; France, \$154,324; Chile, \$139,789; and Panama, \$138,559.

The principal imports were: Cotton goods, \$1,580,037, the chief items of which were piece goods, \$1,069,814; of which \$580,694 from the United States, \$165,558 from the United Kingdom; ready-made clothing, \$72,982, practically all from the United States; and thread \$62,708, about two-thirds from the United Kingdom and most of the remainder from the United States. Of the other items under cotton goods, \$180,192 from the United States and \$55,733 from the United Kingdom. Manufacturers of iron and steel, \$709,990, nearly all of which was from the United States. Wheat flour, \$356,705, of which \$139,789 from Chile, \$138,559 from Panama, and \$62,727 from the United States. The flour imports from Chile and Panama, the latter a transit trade, represent the total imports from these two countries. Hides and skins and manufactures, \$358,355, consisting of leather, \$213,194, and boots and shoes, \$130,144, all of which, except less than \$1,000, came from the United States.

PANAMA.

Presidential decree No. 26 gives effect to Law 40 of 1919 and provides for measures pertaining to the NATIONAL ROADS, authorizing the provincial governors to name the committees on roads created by the law for each municipal district. These committees will be in the capitals of the provinces.

The President issued a decree on the 18th of July prohibiting the sale of ALCOHOLIC AND INTOXICATING BEVERAGES, or the serving of such liquors in any manner to members of the United States Army or Navy in or out of uniform, if the dealer or giver has been previously informed by the national police that he is dealing with American soldiers or sailors. It is also prohibited to sell liquor in open vessels to be consumed outside of the respective places of sale. The sale of intoxicating liquors in closed vessels to women and minors is also prohibited. The exceptions to the foregoing rule is

beer containing not more than 4 per cent alcohol. These restrictions extend to all the towns and districts of the Republic.

By contract with the Department of the Treasury the American firm, Panama Products Co., of Stockton, Calif., has agreed to establish in the city of Panama a **FACTORY FOR THE PRODUCTION OF BUTTER, LARD, CHEESES, AND SOFT DRINKS**, and other similar articles and substitutes. They are to build a plant worth not less than 25,000 balboas (balboa equals \$1) and are to employ Panamanian workmen and raw materials from Panama when native prices and quality warrant. The Government promises to consider the enterprise as a public utility, and will permit the entry, duty free, of machinery and necessities, and will permit it to export its products free of duty for a term of 15 years.

A new company has just been formed in the city of Colon, known as the United Biscuit & Candy Co., which will establish a **CANDY AND CRACKER FACTORY**, and will use electric machinery already ordered from the United States for the purpose.

According to newspaper notices, on the 19th of July a meeting of American Army officers and representatives of the Panaman Government took place in the Department of Foreign Relations to discuss means for constructing a **SYSTEM OF MILITARY ROADS** which the United States Government intends to build in the provinces of Panama and Colon for the industrial and agricultural development of the country as well as for military purposes. The plans for the road system prepared by the American Army engineers, will extend over some 500 miles, and include an area reaching from the Atlantic to the Pacific, with terminals at San Miguel de la Borda, Porto Bello, Chepo, and Chame. The cost of the undertaking, which will be borne entirely by the United States, is estimated at \$20,000,000. On the Pacific side the principal roads will be San Miguel to Chepo; Gatun to Nombre de Dios; Fort Randolph to Panama, which is now almost completed; Panama to Chepo, by way of Pacora; Miraflores to Chame; San Miguel to Chorrera; Fort Randolph to Pueblo Nuevo, by way of Alajuela and Pedrogal; Gamboa to Madre de Dios, by way of Alajuela; and Empire to Chame, by way of Chorrera. On the Atlantic side, branch roads will be constructed from the main highways to points on the coast, such as Chame, Porto Chorrera, Punta Bruja, and Chico. A direct road will also be built from Panama to Chepo.

PARAGUAY.

A **FARMERS', STOCKMEN'S, AND INDUSTRIAL EXPOSITION** will be held under the auspices of the Stockmen's Society, on the 21st of September, in the park of the Museum of Natural History, Asuncion. The society has obtained from the Central Railroad of Paraguay and the Argentine railroads a reduction of 25 per cent on

freight for animals en route to the exposition, and 50 per cent reduction for animals returned to places from which they came. Thanks to this arrangement, several Argentine stock owners will exhibit, and the stock owners of Paraguay will have the opportunity to acquire new blooded cattle for their herds.

According to a table on the **OUTPUT OF PARAGUAYAN REFRIGERATING PLANTS AND SALTING PLANTS FOR 1918**, 57,089 steers were slaughtered, and valued at 1,829,596 gold pesos, divided as follows: Frigorífico Zeballoseuó, 32,404 beeves; Frigorífico San Salvador, 15,509 beeves; Saladero Risso, 9,176 beeves. The largest slaughter took place in the month of March.

The Commercial Review of Asuncion gives the interesting information that the **TEXTILE INDUSTRY** will soon be established in the country. The Textil Paraguaya, a native company, has now in Itape the necessary equipment to start factories. The company will limit itself to supplying the demands of local markets with the finished products of the fibers that it has been cultivating extensively. The national demand for gunny sacking, cord, sisal thread, etc., is of sufficient extent to make the supplying of the products a profitable business for the company, and establish the industry firmly in the country.

THE COMPAÑÍA PARAGUAYA DE NAVEGACIÓN has lately been organized in Asuncion with Uruguayan, Paraguayan, and Argentine capital to carry freight between Asuncion, Buenos Aires, and Montevideo.

On the request of the Stockmen's Society of Paraguay, congress has conceded to them, for the term of 10 years, 10 hectares of the lands of the botanical garden to be used as **AN EXPERIMENT STATION FOR IMPROVEMENT OF STOCK**.

PERU.

The department of commerce, to advertise the national products, has decided to hold an exposition of such products and of the raw materials furnished by the country, and bring them before the public. The National Society of Industries will have charge of the formation of a **SAMPLE COLLECTION OF ARTICLES OF NATIONAL MANUFACTURE** and native raw materials, to be placed on exhibition in Lima wherever the State designates.

The President has approved the constitution and by-laws of the **CHAMBER OF COMMERCE, AGRICULTURE, AND INDUSTRY OF PIURA**. This body is composed of the merchants, agriculturists, and representatives of the industries of the Department of Piura. The constitution and by-laws of the chamber of commerce, agriculture, and industry of the Province of Pacasmayo have also been approved.

SALVADOR.

For the present an embargo has been placed by presidential decree on the importation, manufacture, or sale of FIREARMS, or parts of firearms, explosives, and ammunition. Persons selling counter to the embargo will be subject to the penalty of the law. Goods coming under the classes named in the embargo, which are now in the customhouse and so registered, or goods of this kind which may arrive in the future, shall remain in the customs until such time as the embargo is raised. Mining enterprises and other businesses which have a legitimate use for explosives under their concessions shall be governed by a special clause relating to future orders as to the use of explosives, etc.

Presidential decree of July 4 removed the import duty on heavy wagon and carriage TIRES OR RIMS OF STEEL OR IRON not less than 10 nor more than 15 centimeters wide, and not less than 12 nor more than 15 millimeters thick. This ruling is due to the fact that tires of less width do great damage to the roads.

URUGUAY.

The FOREIGN TRADE of the Republic during the first four months of the year amounted to 62,361,185 pesos, of which 11,580,193 pesos were imports and 50,780,992 pesos exports, showing an increase of 12,350,309 pesos in the volume of trade over the same period in 1918.

The President has appointed a commission consisting of a member and the secretary of the chamber of commerce, a representative from the industries board, a member of the league of commercial defense and other officials to make plans for the conduct of the BUREAU OF PATENTS AND TRADE MARKS.

According to figures given by the office of agricultural statistics THE PRODUCTION OF CEREALS AND FLAX FOR 1918-19 crop were the following: Corn, 187,523 tons; oats, 18,701 tons; flax, 12,660 tons; barley, 1,578 tons; alpiste (birdseed) 455 tons; rye, 27,688 tons. The area sown was 397,834 hectares, proportioned as follows: Corn, 339,771; oats, 34,298; flax, 20,830; barley, 2,097; alpiste, 790; rye, 48.

In the first four months of the year 415,025 BEEVES, 358,119 SHEEP, and 7,644 HOGS were slaughtered; last years' figures for a like period being 373,336 beeves, 96,265 sheep, 4,261 hogs.

The commission in charge of fixing the VALUATION OF NATIONAL EXPORTS has made the following table of values per 100 kilos to be effective for the year 1919-20: Crude wools, 100 pesos; partly washed wools, 100 pesos; washed wools, 130 pesos; salted cowhides, 100 pesos; dry cowhides, 68 pesos; perforated sheepskins, 25 pesos; sheered sheepskins, 14 pesos; tallow, 30 pesos.

From the 1st of June, 1918 to May 31 of the present year 19,009 tons of FLOUR and 16,812 tons of WHEAT were exported from the port of Montevideo. As Montevideo is the port through which almost all exports are shipped these figures give an idea of the extent of the export of these cereals. No corn nor oats were exported in the period just given.

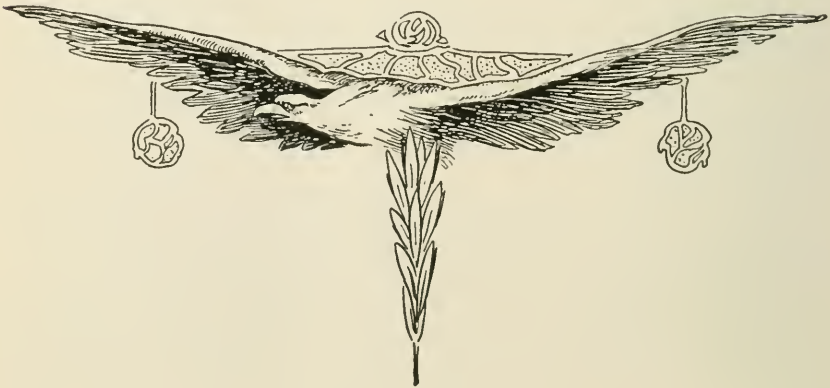
On July 9 the first INTERNATIONAL EXHIBITION OF LIVE STOCK of the season took place in the Prado of Montevideo. The fair was a great success owing to the large number of entries of pedigreed thoroughbred stock. Among the exhibitors were 11 owners of Argentine herds.

VENEZUELA.

The National Congress during July approved two contracts made by the President for the DISCOVERY AND DEVELOPEMENT OF OIL and related products—one in the district of Democracia of the State of Falcón and another in the district of Torontoy, in the State of Merida.

Congress also approved a contract signed by the President and Senor José M. Capriles to develop THE COAL MINES known as Angoleta, El Isiro, and Saladillo, and also to build the RAILROAD FROM LA VEGA TO CORO.

By a decree dated August 4, 1919, the constitutional vice president of the State of Zulia, acting president pro tem., prohibited the SLAUGHTER OF GOATS AND SHEEP suitable for breeding purposes. This measure has been adopted to prevent the decrease and possible extinction of the species, since the high price of hides of sheep and goats has occasioned the slaughter of the ewes and female goats while they were still suitable for breeding.



ECONOMIC AND FINANCIAL AFFAIRS

ARGENTINA.

In June, 1919, the POSTAL SAVINGS BANK did the largest business recorded so far in the history of that institution. The transactions of the bank during the month referred to numbered 72,159, and represented a total of 2,365,883 pesos. On June 30 last the postal Savings Bank had 294,650 depositors, whose total deposits represented 17,247,683 pesos, of which 16,353,550 pesos were invested in Government securities. On said date this bank had 1,120 agencies throughout the Republic.

In June last BOARD OF TRADE BUSINESS increased very considerably, as is shown by the following table:

1919	Bond's and public securities.	Industrial shares.
	<i>Pesos.</i>	
January	19,050,415	90,944
February	16,079,545	53,403
March	19,616,520	95,620
April	21,442,217	58,148
May	24,897,900	62,970
June	27,574,036	144,339

The increase shows that there is a greater abundance of money for investment in bonds and stocks, and, consequently, greater confidence in the economic condition of the country.

In 1912 there were in the Argentine Republic 31 INSURANCE COMPANIES engaged in insuring against damages from hail. At that time these companies had issued policies aggregating 133,576,470 pesos, covering 4,588,533 hectares of land, or 46 per cent of the total land sown to crops. In 1918 there were 36 of these companies in operation, the amount of the policies issued aggregating 183,654,000-pesos, covering 5,600,000 hectares of land in cultivation, and representing 66 per cent of the growing crops.

According to the last industrial census the FOREIGN CAPITAL invested in the Argentine Republic, in gold pesos, is as follows: English, 1,186,000,000; French, 79,000,000; Belgian, 62,000,000; German, 29,000,000: Although these figures are official they do not represent the exact investments. The foreign investments in railways, tramways, banks, etc., exceed 5,000,000,000 pesos, gold.

BOLIVIA.

The message of the President to congress presented on the 6th of August contains the following data on economic matters: The fiscal year of 1918 was closed with a SURPLUS OF TAXES over the budget of 2,600,000 bolivianos (bolivianos equals \$0.389). The IMPORT DUTIES on imported alcohols, on tobacco, customs duties, and export duties on elastic rubber, also the income of the railroad lines, left a DEFICIT of approximately 6,500,000 bolivianos, in which sum is included as loss 1,000,000 bolivianos in nickel coin never put in circulation, and the entire sum of 600,000 bolivianos calculated as a fund to pay the debts contracted for the treasury, which this year were entirely nominal. On the other hand, the development of the BANKING BUSINESS, and the high price of exported minerals on which corresponding duties were collected, increased the funds in the treasury in these and other items by an approximate sum of 4,000,000 bolivianos, reducing the deficit to the figure given above.

THE TOTAL IMPOST TAXES during the first six months of the year was approximately 10,000,000 bolivianos.

The INTERNAL CONSOLIDATED DEBT has been amortized by the calling in of customs bonds, from which during the last half of 1918 and the first six months of the present year something more than 2,000,000 were realized. THE ISSUE OF BONDS OF 1914 of the indemnity of Acre and of bonds of the internal debt, are being made in small sums in accordance with the laws authorizing them. THE FLOATING DEBT has been increased by the sum of \$1,000,000 American gold, provided for by a short-time credit opened by the National City Bank of New York with the national treasury.

The METAL RESERVE of the nation has been increased by the sum of \$2,000,000 American gold which the Banco de la Nacion imported, using for the purpose its deposit in the Federal Reserve Bank of New York.

THE BANKING SYSTEM of the Republic has been developing without any difficulties. The Central Issue Bank has been able to realize some important negotiations, thereby increasing its reserve fund.

THE NATIONAL BANK OF BOLIVIA has increased its capital 1,000,000 bolivianos, selling all the new shares among its old stockholders at a premium of 50 per cent.

The general administration of the revenue on alcohols and alcoholic liquors, created to administer the monopoly of imported alcohols and collect the tax on native products of the same article, has been changed to THE GENERAL ADMINISTRATION OF INTERNAL REVENUE, taking over the collection of many direct and indirect taxes.

The TOTAL RECEIPTS of the lines of the Bolivia Railway Co. in 1918 were over \$1,750,000.

The TOTAL RECEIPTS of the lines of the Electric Light & Power Co. of Cochabamba in 1918 were over 400,000 bolivianos (boliviano = \$0.389). The running expenses and the reserve fund for upkeep exceeded 350,000 bolivianos. Thus the net profit applicable to the government guarantee on the external loan was a little more than 50,000 bolivianos—slightly more than that obtained in 1917.

BRAZIL.

THE PROJECTED BUDGET FOR 1920 submitted by the President to congress for approval fixes the nation's expenditures for the year at 80,953,000 milreis gold (gold milreis = about \$0.546 U. S. gold) and 526,953,000 milreis paper (paper milreis = about \$0.275 U. S.), representing a decrease of 5,218,000 milreis gold and an increase of 61,555,000 milreis paper compared with the sums appropriated for the expenditures of the present year.

According to figures lately published THE REVENUE FROM THE EXCISE AND TRANSPORTATION TAXES in the state of São Paulo for 1918 were as follows: Excise: 29,923,779 milreis, distributed as follows: National products, 23,516,781 milreis, foreign merchandise, 3,318,569 milreis; fines, 33,409 milreis; registration fees, 3,055,020 milreis. The transportation tax was collected as follows: Land transportation, 3,232,662 milreis; sea, 56,166 milreis; total, 3,288,828 milreis.

The following official figures have been given on the FINANCIAL SITUATION OF BRAZIL: Foreign indebtedness, £116,434,274 sterling; internal debt, 1,012,137,900 milreis; currency in circulation, 1,709,113,473 milreis; conversion fund, 20,922,410 milreis, gold; guarantee fund, 48,391,020 milreis, gold; unredeemed bills and notes, gold and paper, 14,632,500 milreis.

THE GENERAL TAXES of the country for 1918 were 103,519,715 milreis, gold, and 380,995,807 milreis, paper, as against 67,155,954 milreis, gold, and 341,070,891 milreis, paper, in 1917; 62,872,969, gold, and 316,187,516, paper, in 1916; 48,931,835, gold, and 313,159,829, paper, in 1915; 75,767,717, gold, and 268,992,658, paper, in 1914. The amounts added give the total of 358,248,190 milreis, gold, and 1,620,406,701 milreis, paper, as the national tax for the five-year period 1914-1918 both inclusive.

The PUBLIC WEALTH OF BRAZIL is calculated to be 30,000,000 contos, reckoned as follows: Unimproved property, 10,000,000 contos; improved property, 5,500,000 contos; personal property, 7,000,000 contos; live stock, 5,000,000 contos; railroads and ports, 2,000,000 contos; manufacturing industries, 500,000 contos.

The CUSTOMS DUTIES OF PUERTO ALEGRE for the first six months of the present year amounted to 948 contos, gold, and 3,502 contos, paper.

The banking house known as the **BANCA ITALIANA DI SCONTO DE ROMA** has obtained permission from the Brazilian Government to do business in Brazil, and has established branches in Rio de Janeiro, São Paulo, and Santos. This bank has a capital of 315,000,-000 liras (lira = \$0.193 U. S.) and a reserve fund of 30,000,000 liras. Capital set aside for operations in Brazil amounts to 5,000 contos.

In the interval from and including the month of July up to the present time the following **BRANCH BANKS** have been established: Banco Português, of Brazil, branch at Santos; Banco Español del Rio de la Plata, branch in São Paulo; British Bank of South America (Ltd.), branch in Porto Alegre, branch in Pelotas, branch in Recife; Yokahama Specie Bank (Ltd.), branch in Rio de Janeiro; London and River Plate Bank, branch in Porto Alegre; Banco de la Provincia de Rio Grande do Sul, branch in Taquara, also branch in Cruz Alta; Banco Nacional del Comercio de Porto Alegre, branch in Cruz Alta; Banco Porto Alegrense, branch in Caixas.

According to the balance of June 30, **THE TREASURY OF THE STATE OF GOYAS** had on hand 1,005 contos, employees paid, and no outstanding debts.

CHILE.

The **BANCO NACIONAL HIPOTICARIO**, with an authorized capital of 10,000,000 pesos, and a paid-up capital of 3,000,000, has been established in Santiago.

The profits of the **BANK OF CHILE**, chief banking institution of the country, were 5,299,987 pesos, which added to the stockholders' fund of 3,091,267 pesos, made a total of 8,391,254, distributed as follows: Dividend of 8 per cent, 4,800,000; employees' saving fund, 480,000; stockholders' fund, 3,111,254. The gold-reserve fund is 5,000,000 pesos (peso = \$0.36 U. S. gold).

Recent presidential decree has raised the **EXTRA SUBSIDY** granted the Arica-La paz Railroad by law No. 3,319 of September, 1917, to 214,387 pesos.

According to a table published by the government inspection of insurance, the summary of the **BUSINESS CARRIED ON BY FIRE INSURANCE COMPANIES** and the 2 per cent tax on first profits during the first six months of the year is as follows: Total insurance, 1,275,766,596 pesos; less reinsurance, 889,575,318 pesos; net profits, 8,755,552 pesos; 2 per cent tax, 175,110 pesos. The data furnished by the table shows that of the 78 insurance companies operating in Chile, 55 are Chilean, 17 English, and 6 German.

According to the last presidential message **THE BUDGET FOR 1919**, exclusive of expenditures covered by special appropriations, amounts to 178,764,018 pesos, currency, and 42,106,665 gold pesos (peso = \$0.36 U. S.). Expenditures authorized by different laws amount to 11,500,828, currency, and 466,666, gold, pesos. The

income for the present year is calculated as 90,810,000, gold, pesos, and 136,034,000 pesos, currency. THE REVENUE COLLECTED IN THE FIRST QUARTER of 1919 amounted to 52,612,965 currency and 8,318,048, gold, pesos.

On the 31st of December FUNDS TO BE CONVERTED INTO PAPER MONEY were apportioned as follows: London, 47,054,130, gold, pesos; mint, 64,000,000, gold, pesos; in shipment to Chile, 218,107, gold, pesos.

The FOREIGN INDEBTEDNESS OF THE REPUBLIC on the first of January was £30,266,540 sterling.

The draft of the BUDGET FOR 1920 PRESENTED BY THE PRESIDENT TO CONGRESS fixed the expenditures at 232,611,681, currency and 66,101,790, gold, pesos. Subtracting from these sums 6,494,000 in bills and 21,567,000 in gold covered by special appropriations, there remains a balance of expenditures of 226,117,681 pesos, paper, and 44,534,790, pesos, gold. The revenues for the year are calculated at 166,138,810 pesos, paper, and 84,700,000 pesos, gold. Comparing the revenue with the expenditures there is a deficit of 59,978,871 pesos, paper, and a surplus of 40,165,209 pesos, gold.

The CONSULAR FEES collected in 1918 amounted to 3,500,000, pesos, gold.

COLOMBIA.

According to official reports on the AMORTIZATION OF BONDS OF THE INTERNAL DEBT, during the first six months of the present year, bonds to the amount of \$44,225 were paid at a cost of \$33,315.

The duty on POSTAL IMPORTATIONS OF COINED GOLD OR GOLD DUST has been fixed at $1\frac{1}{2}$ per cent of the respective values.

The TOBACCO TAX of the Department of Caldas has been fixed at the sum of \$28,830 monthly for a period of four years. As this tax is to be used solely for the construction of the railroad, it will insure the construction of at least a kilometer a month.

The PROFITS OF THE MUNICIPAL STREET-CAR LINE OF BOGOTA during the first six months of the present year amounted to \$179,190. This sum represents an increase of \$11,767 over the same period of the previous year.

During the month of June the mint of Medellin coined 210,539 COLOMBIAN POUNDS, or \$1,052,695 in gold, a much larger sum than the amount coined in the first five months of the present year, which was \$204,677. The amount of coined gold in circulation in the Department of Antioquia is calculated at \$6,000,000.

The TAXES FOR THE DEPARTMENT OF CALDAS for the present year have been calculated at \$1,303,263, gold. In 1918 the revenue was \$1,014,524, gold.

During the past months there has been considerable BANKING ACTIVITY in the different departments of the Republic. The Banco Hipotecario del Pacifico, with a capital of \$600,000, was founded in Cali. It will have a branch in Buga. The Bank of Pamplona has been authorized by the Government to establish a department for mortgages for the period of 50 years. The Bank of St. Gil obtained the same concession, but must limit its operations to Santander del Norte, Santander Sur, and Boyaca. In Popayan the Banco Hipotecario has just been founded with a capital of \$300,000; and finally the Banco Mercantil Americano de Colombia has recently established a branch in the city of Armenia, Department of Caldas.

Several departments and municipalities are agitating the question of LOANS FOR PUBLIC WORKS of importance. The Department of Santander del Norte contracted a loan with two banks in Bogota for the construction of the road from Cucuta to Rio Magdalena, the work for which was authorized by the congress, the Government and the department assembly having appropriated \$555,500. The Department of Narino obtained a loan for the construction of a road from Pasto to Rosario. The Department of Antioquia obtained a loan of \$100,000 from the Bank of Sucre of Medellin to pay the costs of the railroad of Uraba, the enlargement of the mint of Medellin, and the purchase of a site for the building of the Liceo of Antioquia. The municipality of Antioquia obtained a loan of \$3,000,000 to enlarge the electric-light plant, establish street-car service, pave the streets, and to complete the fair grounds.

CUBA.

According to the Heraldo-Comercial, the PROFITS of the tobacco company known as the Habana Cigar & Tobacco Factories (Ltd.), of which the Henry Clay Co. and Bock & Co. form a part, amounted to \$280,000.

The BANCO ESPAÑOL DE LA ISLA DE CUBA on the 30th of June published a statement for the first half of the year. The bank paid a dividend for the six months amounting to \$280,000. According to newspaper notices this bank will open 10 branches in other towns of importance. One of them was opened in Guanajay on August 17.

THE PROFITS OF THE COMPAÑIA INTERNACIONAL DE SEGUROS, S. A., at the end of the first year of its establishment were \$385,000, most of which will be turned into the reserve fund.

The NATIONAL CITY BANK OF NEW YORK has established 21 branches in the following towns of Cuba: Habana, Santiago de Cuba, Cienfuegos, Camaguey, Matanzas, Pinar del Rio, Cardenas, Guantanamo, Santa Clara, Union de Reyes, Caibarien, Galiano, Sancti Spiritus, Manzanillo, Cuatro Caminos, Artemisia, Bayamo, Ciego de Avila, Yaguajay, Sagua la Grande, and Remedios.

The balance of the BANCO NACIONAL DE CUBA on the 30th of June was as follows: Assets.—Cash on hand, \$55,534,774; bonds and securities, \$4,004,567; loans and discounts, \$62,599,166; bank buildings and real estate, \$1,805,837; miscellaneous accounts, \$352,097; on deposit in other banks, \$5,175,780; safety deposits, \$14,115,817; amounting to a total of \$143,588,041. Liabilities—Capital, \$5,000,000; reserve, \$7,000,000; undistributed profits and dividends, \$1,077,379; deposits, \$107,019,136; owing to other banks and bankers (accounts current), \$4,109,927; pension fund of employees, \$90,000; acceptances and letters of credit, \$5,175,780; safety deposits, \$14,115,817, all being equal to the assets. The bank paid the usual 4 per cent interest for six months and 1 per cent extra.

An important REAL ESTATE TRANSACTION took place the first part of July in Habana when an American company bought a large part of the shore of the bay known as Cayo Cruz, formerly the property of one Cuban company. The property in question has a very extensive area, and, according to the newspapers, the American company will build large docks, warehouses, and railroad branch lines to establish connection with the interior.

By the several laws recently passed by Congress and signed by the President on July 25, \$655,000 were appropriated for FUNDS FOR PUBLIC WORKS, to be distributed as follows: Suspension bridge over the Saramaguacan River, municipality of Camaguey, \$60,000; repairing the streets of Bolondron and Guira de Macuriges, Province of Matanzas, \$15,000; rebuilding and extending the Paseo de Marti, in Matanzas, \$50,000; building of roads, \$250,000; construction of a prison of the judicial district and courthouse at Ciego de Avila, \$60,000; construction of a building for the city hospital of Manzanillo, \$60,000; for the equipment of this hospital, \$10,000; construction of bridges in the Province of Matanzas, \$150,000.

DOMINICAN REPUBLIC.

On the first of August a contract made for the Government by the Department of Treasury and Commerce with the International Banking Corporation of New York City, whereby the latter becomes the GOVERNMENT DEPOSITORY, became effective. The bank engages to maintain some 40 branches in the towns designated by the Government, and to receive deposits and honor checks of the Government; to pay an annual interest of $2\frac{3}{4}$ per cent on the daily balance of the current account as it appears on the books of the main office of the Bank of the Republic, and a 4 per cent interest on special deposits for a period to be fixed by the general accounting section of the treasury. Moreover the bank is obliged to maintain a reserve of no less than 20 per cent of funds to be checked against, and no less than $12\frac{1}{2}$ per cent of temporary deposits, whether of the Government or other depositors. The Government promises to pay

the bank for its services a commission of $\frac{3}{4}$ of 1 per cent on the total taxes collected and deposited every month by the general accounts of the treasury, including the amortization fund of the Dominican Republic, issue of 1918.

An executive decree of the 30th of June authorizes the general accounting section of the treasury to deposit the sum of \$521,928 in the bank designated by the Dominican Government in the city of Santo Domingo, to be used as a special FUND FOR PUBLIC WORKS OF THE DOMINICAN REPUBLIC. This fund and the accrued interest will be at the disposition of the Department of Public Works to pay for undertakings duly authorized by the Government.

The military governor of Santo Domingo issued a decree on the 2d of July which fixed 1 per cent as the LEGAL MONTHLY INTEREST for civil or commercial matters, and also included measures to combat usury.

The charitable society, "Padre Billini," of Santo Domingo, has been authorized by the Government to contract a LOAN OF \$15,000, gold, with an interest not to exceed 10 per cent, to enlarge and improve the insane asylum of that city.

ECUADOR.

An executive decree of June 20, 1919, amends article 27 of the rules and regulations of the law concerning taxes on AGUARDIENTE, ALCOHOL, and other national and foreign beverages, and provides that the transportation of aguardiente or alcohol produced in any place in the Republic, including the Colon Archipelago (Galapagos Islands), shall not be lawful without the fiscal waybill referred to in article 9 of said law. This decree amends also the decree of December 20, 1918, and provides that the Department of Finance shall see to the observance of same.

GUATEMALA.

According to newspaper notices the Guatemalan Government has invited Mr. Edwin Walter Kemmerer, professor of economics and finance at Princeton University, who arrived in Guatemala the last of July, to make a STUDY OF THE ECONOMIC AND FINANCIAL PROBLEMS OF GUATEMALA, and to act as advisor in the matter.

In order to protect public and private property rights and interests the President has decreed that the governmental INSPECTION OF BANKS operating under a legal concession shall be extended to all banking houses now in existence in the country or that may be established in the future.

In the general meeting of stockholders of the BANK OF GUATEMALA which took place on the 9th of July the board of directors declared a dividend of 400 pesos a share for the first six months of the year.

MEXICO.

The Department of Foreign Relations has published data showing that the consulates which Mexico maintains in the different countries have collected CONSULAR FEES, during the first quarter of the present year, in the sum of 400,000 pesos.

At the close of July last a branch of the NATIONAL CITY BANK of New York was opened in the City of Mexico. This bank also proposes to establish a branch in the city of Vera Cruz.

NICARAGUA.

The memorandum lately published by the office of the general customs collection for the period from January 1 to December 31, 1918, gives the following data concerning the SETTLEMENT OF THE INTERNAL DEBT: The internal and other floating debts have occasioned many difficulties for the Republic since 1910, preventing the establishment of financial matters upon a firm basis and threatening serious crises from which the Government has not been able to extricate itself unaided. The plan for the settlement of these debts, paying part in coin and the remainder in long-term interest-bearing bonds, prepared in 1916 by the collector general of the customs, has happily been put into effect. The sum total of these debts was 12,884,556 cordobas and was reduced by the commission of public credit to 5,227,536 cordobas, eliminating the excessive interest and arranging payments in relation to the nominal value of the claims. During the year 1918 there were back payments cancelled to the amount of 1,427,536 cordobas, of which 334,840 cordobas were contributed by the funds from the canal convention, and 1,092,695 cordobas were supplied by the director general of the customs from the funds saved during 1916 and 1917 for the external debt of the Republic, as the foreign indebtedness was paid with funds supplied by the canal convention according to the financial program. For the consolidation of the floating debts 3,800,000 cordobas in guaranteed customs bonds were authorized, practically all of which have been issued and recognized by the high commission in charge of the matter. The reorganization of the finances of the Republic has had an excellent effect upon the collection of the internal revenue.

The total of the GENERAL TAXES FOR 1918 was 1,867,036 cordobas, not including the customs revenue set aside for the payment of the debt. Of this amount 1,322,755 cordobas were paid for expenditures of the budget, leaving a SURPLUS of 544,280 cordobas. In accordance with the financial program, 25 per cent of this surplus (134,722 cordobas) should be paid within the following month to redeem certificates of consolidation issued in place of interest on the bonds of 1909, postponed (together with the amor-

tization fund), until 1920 by the financial program. Payments as follows: 75 per cent of the coupons due July 1, 1917, 102,108 cordobas; 75 per cent of the coupons due January 1, 1918, 102,108; 70 per cent of the coupons due July 1, 1918, 95,300 cordobas; 70 per cent of the coupons due January 1, 1919, 95,300. The total of this interest thus extended has been reduced consequently to 260,096 cordobas. Deducting the payments made shortly after the 1st of January, 1919, from the funds from the surplus of revenues before mentioned, and applied to the certificates of consolidation, treasury certificates, and guaranteed customs bonds up to the beginning of the present year the DEBT OF NICARAGUA has been reduced as follows: Bonds of 1909, sealed, 1,119,060 pounds, or 5,445,905 cordobas; bonds of 1909, not sealed, 930 pounds, or 4,769 cordobas; bonds of 1909, certificates of consolidation, 260,096 cordobas; treasury certificates of 1913, 263,986 cordobas; deferred treasury certificates of 1917, 138,118 cordobas; guaranteed customs bonds, 762,350 cordobas; bonds of 1904, 30,000 cordobas; emergency issue of cordobas (not redeemed), 149,440 cordobas; total 10,054,665 cordobas.

PANAMA.

The decree relating to the TWO YEAR BUDGET FOR TAXES AND EXPENDITURES for 1919 to 1921, inclusive, issued by the President on the 28th of June, computes the national revenue for the economic period beginning the first of last July and ending the 30th of June, 1921, at the sum of 7,220,474 balboas (balboa equals \$1), and fixes the net expenditures at the same sum for the same period, distributing them among the different departments of the Government as follows: Administration and justice, 2,664,910 balboas; foreign relations, 182,440 balboas; treasury, 1,935,817 balboas; public instruction, 1,100,730 balboas; agriculture, 1,356,577 balboas. Any excess revenue over that calculated will be distributed in the following manner: Not less than 75 per cent to be used to establish a fund for road building and repairing, and not more than 25 per cent to cover extra or special credits not in the budget for necessary expenses.

Executive decree of the 23d of June states that owners of the ships and owners of the cargo shall be liable for the WHARFAGE CHARGES incurred on live stock, merchandise, and native products as established in article 504, and those following, of the fiscal code.

According to a table published by the office of public registration the number of MORTGAGES registered in that office from the 1st of January, 1914, to the 1st of July of the present year were 1,452, of which 271 were on country property and 1,181 on city property. The aggregate amount involved in the former was 2,848,484 balboas, and the amount in the latter was 5,754,959 balboas, making a total of 8,603,443 balboas.

PARAGUAY.

A BRANCH OF THE BANCO DE ESPAÑA Y PARAGUAY was established the middle of July in the town of San Ignacio de las Misiones, supplying a want that has long been felt by the merchants, businesses, and stockmen of the region. This is the first bank to be established in this prosperous part of the country.

According to the memorandum of the board of directors of the BANCO MERCANTIL DEL PARAGUAY for 1918 the volume of business of the bank reached a total of 7,252,084,657 pesos, currency, as against 6,333,613,370 of the previous year, showing an increase of 918,571,287 pesos in 1918. Deducting the expenditures the loss and gain account shows a net profit of 1,250,000 pesos, distributed as follows: Council of administration, 5 per cent, 62,500 pesos; directorate, 7 per cent, 87,500 pesos; shareholders, 80 per cent, 1,000,000 pesos; reserve fund, 8 per cent, 100,000 pesos. The reserve fund amounts to 14,100,000 pesos.

PERU.

On the 1st of June the metallic reserve held by the banks of Lima amounted to 2,289,748 Peruvian pounds (Peruvian pound equals \$4.866). Of the amount held in Lima, 511,666 pounds were in gold, and 82,528 were in silver, while 1,695,554 pounds were deposited in foreign banks.

SALVADOR.

A number of financiers, business men, and property owners of different parts of the country, as well as the Society of Agriculturalists of the Department of La Libertad, have petitioned the national assembly to declare UNITED STATES MONEY LEGAL TENDER in the Republic, and also that a rate of exchange of 2 for 1 be established in regard to Salvadorean and American money—i. e., one Salvadorean peso to be equal to 50 cents United States money.

URUGUAY.

THE SALARY OF THE PRESIDENT OF THE REPUBLIC HAS BEEN FIXED AT 24,000 PESOS A YEAR for the period from 1919 to 1923.

According to the figures furnished by the inspection of banks and corporations the AMOUNT OF COINED GOLD WAS 50,342,220 pesos on June 1. Of this sum, 4,817,287 pesos belonged to private banks, the remainder being in the Bank of the Republic. The total represents an increase of 320,220 pesos over the amount on hand on May 1 of this year, and it is probable that the coming months will show even larger figures, since on the 1st of July \$3,250,000 coined

gold from the United States arrived at Montevideo consigned to the Bank of the Republic and \$6,000,000 for the Banco Italiano del Uruguay.

During the fiscal year 1918 to 1919 the INTERNAL REVENUE collected on tobacco, novelties, perfumes, etc., amounted to 1,691,901 pesos, or an increase of 199,967 pesos over the previous year.

Presidential decree of June 24 declares that for the provisions of article 6 of the consular tariff the VALUE OF THE URUGUAYAN PESO SHALL BE EQUAL IN HOLLAND TO 3 FLORINS 10 CENTESIMOS.

According to a table published by the bureau of valuations the VALUE OF RURAL PROPERTY of the Republic as given in the tax list of 1918 is 846,811,646 pesos, the number of estates being 69,205 with a total of 17,215,680 hectares. The tax list of 1913 gave the number of estates as 58,530, with an approximate value of 890,004,833 pesos.

A new banking house known as the BANCO AGRICOLA GANADERO (Farmers' & Stockmen's Bank) has opened in Montevideo with the object of taking part in the development in the leading industries of the country. The new bank proposes to do a commission business for its shareholders, buying seeds, fertilizer, farm implements, tools, veterinary supplies, etc. It will also accept consignments of merchandise, execute the sale of crops, fruits, and all classes of commercial dealings for its shareholders. It will sell and place orders for its patrons for wool, wheat, flax, corn, etc., sent to it for the purpose; and it will also periodically give exhibitions and fairs in parts of the Republic devoted to agriculture and stock raising, where patrons may exhibit and sell their stock and products.

VENEZUELA.

According to a memorandum dated June 30, presented by the board of directors of the BANK OF CARACAS to the shareholders, the business of the bank during the first six months of the year netted a total of 529,727 bolivares (bolivar equals \$0.193), which sum, added to the surplus from the preceeding liquidation, gives a total of 545,734 bolivares. Deducting from this latter sum 58,765 bolivares, the interest on obligations to be met, the total profit is 486,969 bolivares. As the sum of general expenses and the amortization was 101,238 bolivares, the total net profit for the six months was 385,731 bolivares. From this net profit 36,972 bolivares were turned into the reserve fund, now 1,156,661 bolivares, 18,486 bolivares were added to the guarantee fund, now 500,000 bolivares. The usual distribution of 11,666 bolivares was made among the directors, agents, and employees, leaving a surplus of 198,606 bolivares, which the board of directors propose to distribute as a dividend.

The middle of August THE BRANCH OF THE NATIONAL CITY BANK OF NEW YORK opened for business in Maracaibo.

The steamer *Caracas* which arrived at La Guaira the middle of August, brought 800,000 DOLLARS RECOINED for the Banco de Venezuela. This amount, added to that which this bank and other Venezuelan and foreign firms have received, will materially increase the amount of gold in the country.



INTERNATIONAL TREATIES

COLOMBIA—EQUADOR.

On June 9 at 4 p. m. in Cartagena commissions from the Governments of Colombia and Equador signed A TREATY DEFINING THE BOUNDARIES between the two countries. The Equadorean commission were entertained extensively, being guests of honor at several parties.

PARAGUAY—SPAIN.

THE EXTRADITION TREATY BETWEEN SPAIN AND PARAGUAY was signed June 24 by the Spanish minister to Paraguay and the minister of foreign relations.

URUGUAY—BRAZIL.

The Ministry of Foreign Relations has authorized the Uruguayan minister to Brazil to arrange for ratifications by both countries of the TREATY DEFINING THE BOUNDARIES lately made by the Republic of Uruguay with the United States of Brazil. Presidential decree of July 2 appointed Senor don Virgilio Sampognaro as envoy extraordinary on special mission to fill the post of high commissioner of Uruguay to Brazil, with all the rights and powers for the purposes named in the treaty made between the Republic of Uruguay and the United States of Brazil to liquidate the debt of the two countries.



LEGISLATION

COLOMBIA.

In conformity with executive decree No. 1255, of the 20th of June, which regulates the exploration of oil lands, several petitions made to the ministry of public works to explore the subsoil of unoccupied and other lands, have not as yet been granted. It has been decided, as congress is now in session and will consider the question of OIL LAND GRANTS, not to grant any petitions for the present, as such grants might have a bearing on the legislation in view. Therefore a motion was carried on the 22d of July to suspend consideration of the oil-land grants until such time as the congress shall have completed the legislation regarding the matter.

HAITI.

On June 14, 1919, Le Moniteur, the Haitian official newspaper published the text of the law which provides for a NEW TAX on certain export products. This tax, called "Droit de Statistique," varies from 5 cents per 100 pounds on raw sugar to \$1 per 100 pounds on cotton.

PANAMA.

The presidential decree of July 10 makes various regulations governing the NATURALIZATION OF ALIENS and gives a period of six months from the date of the decree for all the Chinese, Turks, and Syrians who had obtained naturalization papers when not prevented by law to present themselves at the department of foreign relations for identification and to have their finger prints and photographs attached to their letters of naturalization. Copies of the finger prints and photographs will remain with the duplicate letters of naturalization in the archives of the department.

PERU.

On July 9 last the Provisional President issued a decree calling a general election of representatives and submitting to popular vote the following CONSTITUTIONAL AMENDMENTS: 1. The renewal of the legislative power shall be complete and shall necessarily coincide with the executive power. The term of both powers shall be five years. 2. The legislative power shall consist of a senate of 35 senators and a chamber of 110 deputies. 3. The senators and deputies and the President of the Republic shall be elected by direct popular vote. 4. The regular annual session of congress shall be not less

than 90 nor more than 120 days. An extra session of congress may be called by the executive whenever he deems expedient. 5. The senate and chamber of deputies shall only meet jointly to inaugurate their sessions, sanction international treaties, and to execute the electoral powers vested in them by the constitution. 6. Members of congress are ineligible to any other public office. 7. Diplomatic ministers shall be appointed by the President and confirmed by the senate. 8. Constitutional guaranties shall not be suspended by any law or authority. 9. Changes in office in the judiciary shall be determined by a law which expressly prescribes the exclusive conditions of promotions. 10. The tax on incomes shall be progressive. 11. Disputes between capital and labor shall be submitted to compulsory arbitration. 12. Congress shall not grant personal gifts involving an outlay of the national treasury. 13. Congress shall not issue legal-tender currency except in case of war. 14. There shall be three local legislatures, representing the north, center, and south of the Republic, which shall meet annually during a period of 30 days, and whose acts shall be communicated to the National Executive for fulfilment, who, in case of nonacceptance, shall submit them, with his observations, to congress in order that they may follow in that body the same procedure as vetoed laws. 15. The provisional councils are autonomous in the management of matters intrusted to them, but the levying of excise taxes must be approved by the Government. 16. There shall be a council of state (cabinet) composed of six members chosen by a vote of the council of ministers and confirmed by the senate. 17. Only the Government may grant, according to law, pensions and compensations. 18. No one shall receive from the Government more than one salary or compensation. The next congress, which will be inaugurated on September 15, will be presided over by the president of the senate, and shall sit 30 days as a national assembly for the purpose of promulgating the amendments that may be adopted by popular vote.

VENEZUELA.

The President, on the 24th of June, published the LAW OF THE FORMATION AND RECRUITING OF THE LAND AND SEA FORCES. This law was passed by congress at its last session and provides that all Venezuelans are subject to the call of national defense as follows: (A) To serve two years with the active forces of the army in times of peace; in war, as long as the President designates. (B) To remain in the reserve of the army until the age of 45.

Congress during its last session enacted the LAW OF THE NATIONAL CENSUS published by the President on the 27th of June, which provides that the uncompleted census of 1916 shall be taken on the 1st of January, 1920, and shall be repeated on the 1st of January, 1926, and thereafter every 10 years.

PUBLIC INSTRUCTION AND EDUCATION

THE EDUCATIONAL SYSTEM OF THE REPUBLIC OF CUBA.¹

Since Cuba began its political career as an independent and sovereign nation two important aims have constantly received the attention of its Government and of its people. These may be expressed in two words—namely, **SANITATION AND EDUCATION**. The first was indispensable to its physical life; the second to its political existence, and both to its social and economic development. As a result of the work done in these two fields during a period of 19 years, Cuba gives us an example of a people who have established an improved system of education especially adapted to the conditions of the country.

In the educational field the first thing to combat was illiteracy. From 50 to 60 per cent of illiterates in a population which has doubled within the period of 19 years (the present population of the island is about 2,500,000), the percentage has been reduced, among the inhabitants under 20 years of age, to 10 per cent in the cities and to 20 per cent in the rural sections. It is seen, then, that the efforts of its educators are toward the solution of questions intimately connected with the future of its institutions and the happiness of its people, problems which must be solved by means of education. They are:

1. To substitute the impulsive reaction of the people with habits of citizenship.

2. To develop and intensify sentiment of solidarity.

3. To furnish to each citizen, male or female, preparation for encouraging a life which is developing on a high political, social, and economic plane.

These being the objects which mark the route of the educational system of Cuba, let us pass to a study of its organization and administration. We shall consider, preferably, the part relating to primary, secondary, and normal instruction, inasmuch as in 1913 the Pan American Union published an article on the National University of Cuba.

The public educational system of Cuba comprises the following divisions:

Primary instruction: Rural, urban.

¹ By Arturo Torres. Prepared from data furnished by Dr. Ramiro Guerra, professor of education in the Normal School of Habana, and information contained in the Columbus Memorial Library of the Pan American Union.

Secondary instruction: Academic, vocational.

Normal instruction: Kindergarten, primary.

Industrial instruction: Arts and crafts, industrial chemistry, painting and decorating, bookbinding.

University instruction: Philosophy and letters, professions.

Artistic instruction: Painting, sculpture.

Teaching in Cuba in its different divisions is not distinguished by the high grade of centralization which prevails in other countries. Decentralization exists, especially in the technical branches and in all that concerns the appointment of teachers, regardless of whether they come from normal or secondary schools, or from the university. All chairs are filled by competitive examination. Nevertheless the secretary of public instruction and fine arts is the supreme chief with power to regulate and interpret everything concerning education.

In primary teaching the six provincial superintendents are direct coworkers of the secretary of public instruction, and when presided over by him form the board of superintendents which has charge of the technical part. The duties of the board of superintendents are to prepare the plans and programs of study, to draw up the study hour sheets, and to approve the textbooks, etc. In each department there is a superintendent of schools with the duties of a delegate of the department, who is considered the technical and administrative chief of the Province. The provincial inspector of public instruction and the inspectors of the district work under his orders. It is the duty of the latter and of the school boards to nominate and appoint the teachers. The school boards are elected by popular vote; the inspectors of the district by the provincial inspectors; and these, in turn, are chosen by the department of public instruction.

To be a district inspector it is necessary to have been a teacher and to have passed the National University courses in psychology, pedagogy, methodology, school hygiene, and the history of pedagogy. Only persons who have been teachers and district inspectors and who have the degree of doctor of pedagogy are eligible to the posts of provincial inspectors. Provincial superintendents must be chosen from persons who have shown that they possess fitness and administrative ability.

In December, 1899, it was required that in order to enter the teachers' profession it was necessary to demonstrate one's fitness and preparation by means of an examination. This practice was retained until the national congress enacted the law of March 16, 1915, establishing normal schools and abolishing teachers' examinations.

Teachers obtain their appointments from the school boards on the recommendation of the district inspectors. The appointments

made by these boards are sent to the provincial superintendents for their approval. The first appointment, which is of a provisional character, is for a trial period of two years; the final ratification, which gives teachers a permanent status, is made at the expiration of this term. A teacher can not be removed without a hearing, and has the right to appeal to the courts. The monthly salary scale is as follows; At the time of appointment, \$65; after ratification, \$80; monthly increase after 5 years, \$5; monthly increase after 10 years, \$10; extra salary up to \$25; district inspector, traveling expenses and \$200; provincial inspector, traveling expenses and \$200; provincial superintendent, traveling expenses and \$300.

The school reorganization of 1899 made primary instruction obligatory and gratis, the latter term meaning that it is not only the duty of the State to offer free instruction as a matter of right, but also that it is incumbent upon it to furnish books and supplies to children of school age.

During the first administration of the present Government—that is to say, from 1913 to 1917—the department of public instruction accomplished a work worthy of praise. New courses were adopted, new bases established for the selection of textbooks, the schools were classified in accordance with the objects each group proposed to attain, and 1,004 new schools, with a capacity for the accommodation of 50,000 pupils, were opened. From that time the schools were classified as kindergarten, rural primary, and urban primary.

The kindergartens, which are for pupils of from 4 to 6 years, are maintained in the cities and in places where the density of population justifies. Teachers of these schools are prepared in the normal kindergarten school, and courses of this kind are now taught in other normal schools. The preparation period for kindergarten teachers in two years, and their admission to the normal school is by examination.

The primary rural school has three things for its objects—namely, to furnish its pupils with a certain minimum of knowledge, to prepare them for citizenship, and to impart to them special and practical knowledge useful for country life.

It is here that the Cuban school administration finds two urgent problems of difficult solution, both of which are common to a large part of Latin America. The first problem is the training of teachers for rural instruction so as to equip them both with professional and practical knowledge, and at the same time make them capable of appreciating the possibilities of the sphere in which they work. The second is to extend the school term, for a large percentage of children, to the termination of the primary studies.

The rural school has five grades. Its courses comprise the following: Reading and writing; mother language; arithmetic; studies

of nature and agriculture; drawing and manual labor; physical education and hygiene; local history and geography; morals and civics; and domestic economy. Pupils completing the rural-school course may enter the agricultural experiment schools maintained under the direction of the department of agriculture, commerce, and labor. Each province has an agricultural experiment station, the necessary land, equipped with agricultural instruments and prepared for housing and boarding pupils.

In 1914 the rural-school system was provided with two traveling teachers. This number has been gradually increased until in 1917 it was 104. These teachers work in sparsely populated districts, their duties are somewhat limited, and they earn an extra salary. In September of the present year a new type of traveling school will be in operation. The equipment will consist of two railway cars—one used as living quarters for the teacher and the other as a classroom. Its activities will be confined to the sugar centrals. The question is not now to bring the child to the school, but rather to take the school to the child. This is another proof of the great activity of the Cuban Government in fighting illiteracy.

The urban primary school has a course covering a period of eight years, six of which are devoted to elementary instruction and two to higher elementary instruction. The next higher grade is secondary or normal instruction. During the fiscal year 1916-17 there were in the Republic 4,680 primary schools with 4,687 classes, 5,258 teachers, 303,287 matriculates, not including 6,825 students registered in the traveling schools. The school budget for the year mentioned amounted to \$8,000,000.

Secondary instruction is given in the six provincial institutes and in the private colleges connected therewith. These institutes were established during the colonial régime. In 1900, under order 267, the present organization became operative in accordance with the plan of Dr. Enrique Varona, a celebrated educator. These institutions are coeducational and have a double purpose—namely, to furnish an academic education preparatory to the continuance of university studies, and, secondly, to provide a vocational and practical education.

Entrance to the secondary instruction grade is by examination, after passing the superior primary grade, a minimum age of 14 years and payment of an annual matriculation fee of \$12.50 being the other requirements. To facilitate the preparation of pupils who desire to enter the secondary grade, a preparatory course was provided. The tuition for this course is \$10. The studies are of a general character and are divided into two groups. The academic course of secondary instruction extends over a period of four years,

at the end of which time the degree of bachelor of letters and science is conferred upon students entitled thereto. The following study plan shows eight groups of studies:

PREPARATORY COURSE.

Group A.—Spanish grammar with composition and derivation exercises; recitation of selected Castillian pieces, in prose and verse, with an explanation of the same; elementary geography and history.

Group B.—Plain drawing and elements of geometry; elementary hygiene; rudiments of physiology, zoology, and botany; English and French.

SECONDARY INSTRUCTION.

Group A.—Spanish grammar; didactic literature; Castillian literature (historical), three courses.

Groups B and C.—English and French; two courses, respectively.

Group D.—Universal geography; universal history; two courses.

Group E.—Arithmetic; algebra; geometry; trigonometry; three courses.

Group F.—Physics (two courses); chemistry; three courses.

Group G.—Natural history; elements of cosmology; introduction to biology; three courses.

Group H.—Logic and elements of psychology; instruction in civics; introduction to sociology; calisthenics; two courses.

Secondary instruction in a society which aspires to be democratic does not have for its sole purpose the serving of the interests of students belonging to the privileged, social, economic, or intellectual classes, but also the interests of those who, having acquired an elementary education, desire and are fitted for vocational training or who lack means, economic or intellectual, to take up university courses. With the object of serving this second group of students, already very important in Spanish-American countries, there has been established, annexed to secondary academic institutes, a system of secondary vocational education, and, therefore, in accordance with the necessities of the place, schools giving instruction in bookkeeping, stenography, surveying, agriculture, and navigation are maintained.

As has already been indicated, secondary instruction enjoys in technical matters and in the selection of its faculty the liberty necessary for that purpose and for its development. The plans of study and the organic rules and regulations are prepared by the faculty and the selection of professors is by competitive examination.

The establishment of seven normal schools, two for the Province of Habana and one for each of the other Provinces, caused the primary educational system of Cuba to be endowed with a rich reserve of teachers. Otherwise all the efforts and hopes placed in the free public schools would have been in vain. National instruction depends on the normal schools and on the School of Education of the National University, since these will prepare teachers and educators. Rules and regulations for the normal schools were issued in

December, 1915, and the organization of same was begun immediately thereafter. The last of these schools to be opened is the one at Camaguey, which will be ready to begin its courses in September next. The normal course covers four years. Tuition is free. Candidates must be at least 14 years old and pass a satisfactory examination in the primary studies. The professors prepare annually their respective programs, and the chairs are awarded by competitive examination.

Space will permit only a slight reference to be made to the Professional School of Painting and Sculpture of Habana, and to the School of Arts and Crafts. The first mentioned teaches the following branches: Elementary drawing, Greek drawing, sculpture, coloring, pictorial anatomy, and perspectives. The School of Arts and Crafts dates from colonial times. From 1900 to 1902 it was reorganized and furnished with a building, which is now the most beautiful school edifice of the city of Habana. The subjects taught are: Preparation of manual teachers, industrial mechanics, industrial chemistry, carpentering and cabinetmaking, painting and decorating, and book-binding. The State pays the tuition of students. Of the budget of the Government of Cuba for 1918-19, totaling \$54,400,000, the sum of \$10,000,000 was for educational purposes.

CHILE.

The department of justice and public instruction has agreed to the proposal of AN EXCHANGE OF PROFESSORS between the University of Chile and the University of California. The terms of the agreement are the following: The University of California is to send every year four professors, two to be selected by the University of California and two to be selected by the department of public education of Chile; the department of public education of Chile will select two Chilean professors and the University of California will select the remaining two of the four, who will go to teach in the United States; these may be chosen from the professors of the universities, normal schools, liceos, or from industrial, agricultural, and commercial schools; their terms of professorship in the exchange chair may not be for less than two years nor more than four; professors selected shall consider themselves still part of the faculty of the college from which they came, and shall draw their salaries from that institution; traveling expenses shall be paid by the University sending the professor abroad; professors shall conform to the rules and regulations of the university to which they are assigned, and shall be given ample opportunity for research work; exchange professors shall be required to know the language of the country to which they are sent. The University of California and the department of public education of Chile will arrange

a year in advance what professors are to be exchanged. The professors shall arrive in time to begin the school year. The exchange will begin next year with the sending of Mr. Chapman to Chile to begin his course for the school year of 1920.

From the 12th to the 16th of September the first CONGRESS OF PRIMARY EDUCATION will take place in Santiago. The President of the Republic, members of the cabinet, and high officials of the department of education will attend the meeting of 2,000 delegates from educational institutions from all parts of the country. The congress will hold daily sessions from 2 p. m. to 6.30 p. m. and will be divided into nine sections. The hours when there are no meetings will be devoted to sight-seeing and entertainments.

COLOMBIA.

A SCHOOL OF STENOGRAPHY has been opened in Medellin to supply the need of expert stenographers.

The Argentine Government through the minister at Bogota has offered to Colombia THREE SCHOLARSHIPS IN THE ARGENTINE MILITARY COLLEGE. The offer is much appreciated by the Colombian Government and public.

A DENTAL COLLEGE with competent instructors, most of them graduates of the University of Pennsylvania or European universities, has lately opened in Medellin.

The Society for Civic Improvement has offered a REWARD OF HONOR for the student who has distinguished himself most by his civic activities.

GUATEMALA.

CLASSES IN HAT MAKING have been added to the course of study in the Central American College for Young Ladies, as many young women desire to take up this form of industry.

Presidential decree of the 7th of July gives the organization of the CORPS OF PROFESSORS of the Faculty of Natural Sciences and Pharmacy of the city of Guatemala.

HAITI.

With a view to increasing the efficiency of the SCHOOL OF AGRICULTURE OF THOR, the secretary of agriculture prepared new rules governing that school and submitted them for approval to the President. These rules, together with the letter of the secretary to the President, and the latter's reply, were published in the *Moniteur* on July 9.

The department of public instruction has appointed several CENSUS COMMISSIONS which will ascertain from each family whether the children between the ages of 7 and 14 attend school regularly.

GENERAL NOTES

ARGENTINA.

On June 3 last the President of the Republic received Dr. Ricardo Mujia, the NEW BOLIVIAN MINISTER near the Argentine Government.

The MONUMENT to Admiral Brown, erected in Buenos Aires by order of the National Government, was unveiled on July 8, 1919. The monument is the work of the Italian sculptor, Alexander Chio-pasco. Admiral Brown, although of Irish birth, enlisted in the revolutionary forces at an early date, established the Argentine navy, and won important victories, both in the Atlantic and the Pacific, for his adopted country and for the liberty of South America.

The FIRST NATIONAL CHEMICAL CONGRESS was opened in Buenos Aires on July 7 last, the minister of justice and public instruction being present. Guillermo Schaefer was chosen chairman. Numerous delegates were in attendance.

The official delivery of an oil PAINTING OF WASHINGTON, which the Secretary of War of the United States gave the Argentine army, took place on July 7 last in the Military College in Buenos Aires. The ceremony connected with the delivery of this painting was a manifestation of good will between the two countries. The secretary of war of the Argentine Government, the ambassador of the United States, his personnel, and a large number of military and civil officials of the Argentine Government were in attendance.

There is soon to leave for Europe a MOVING-PICTURE PROPAGANDA commission under the direction of Max. Glucksmann, who will make known in the various countries of that continent, by means of films the different aspects of the economic wealth of the Argentine Republic. The film is 4,000 meters long and covers detailed information of the entire country. To make the exhibition of this film more attractive, Mr. Glucksmann has interspersed here and there interesting information concerning the social, sportive, and artistic aspects of the country.

BOLIVIA.

The President in his message to congress on the 8th of August states that THE MAIL AND POSTAL SERVICE in 1918 shows a considerable increase in postal money orders over the previous year, and that new offices have been established in several districts to improve the service. Six new lines are to be added to the TELEGRAPH SYSTEM, four of these lines being already under construction. Of the 24 telegraph offices in different districts 18 are Gov-

ernment owned and 6 are operated by individuals. A WIRELESS STATION AT COBIJA was installed to put the northeast in communication with the rest of the Republic and the offices in Brazil. THE WIRELESS SERVICE has been divided into three zones with central stations at Riberalta, Viacha, and Yacuiba.

In December, 1918, the country was divided into three MILITARY ZONES and THREE MILITARY COMMANDS. The northern military zone will include the department of La Paz, the central zone will include the departments of Oruro and Cochabamba, and the southern zone will contain the departments of Chuquisaca and Potosi. The departments of Tarija, Santa Cruz, and El Beni, to which is annexed the territory of the colonies of the northeast, will constitute the three military commands.

BRAZIL.

The Brazilian press states that of the individual firms and companies that have applied to the Government to institute AERIAL NAVIGATION SERVICE the English firm of Handley-Paige is the only one up to the present to present definite proposals for travel and carrier service between Recife and Buenos Aires, with stops at Maceio, Bahia, Victoria, Rio de Janeiro, Santos, São Paulo, Florianopolis, Porto Alegre, and Montevideo. This line will use the large planes of type V with a capacity of 20 to 40 passengers and 2 tons of mail, each plane being provided with four 350-horsepower engines and a supply of gasoline sufficient for a 600-mile flight.

The government of the State of Santa Catharina has closed a contract with a group of capitalists to construct a large HOTEL AND CASINO to be provided with all the means of amusement. The hotel will be at Caldas, 20 kilometers from the State capital, and in a region of hot springs. The State government also intends to build a model town and connect it with Florianopolis by a fine automobile road.

A DEPARTMENT OF HEALTH SERVICE has been established in connection with all the railroads under the department of communications, to care for the health and well-being of the employees. The services to be performed by the new department will include medical and surgical care of the sick in hospitals or at home and prophylaxis for diseases prevalent in regions traversed by the railroads.

A short time ago in Santos canal No. 6 was opened, forming a part of the SANITARY SYSTEM of that port. The canal is 1,652 meters long, built of reinforced concrete at a cost of 430 contos (conto = about \$275 U. S. gold).

Under the auspices of the president and high authorities of the State, about the middle of July work was begun in Sao Paulo on the construction of the AVENIDA INDEPENDENCIA which will run

from Vargem do Carmo to the Monumento do Ypiranga, where the State Museum is. The avenue will be $2\frac{1}{2}$ kilometers long and 45 meters wide.

By executive decree of June 25, a BRAZILIAN CONSULATE was created at Newcastle on Tyne, England.

CHILE.

The President of the Republic has reorganized his cabinet as follows: Minister of the interior, Señor Luis Serrano Arrieta; minister of foreign relations, Señor Luis Barros Borgoño; minister of the treasury, Señor Julio Phillipi; minister of justice, Señor Pablo Ramirez; minister of industry, Señor Manuel J. O'Ryan; minister of war and navy, Señor Enrique Bermudez.

The President has been authorized by Congress to expend the sum of 300,000 pesos in combating INFECTIOUS DISEASES all over the Republic.

Señor Don Jose Luis Coo has been appointed to fill the post of CONSUL OF CHILE IN THE NEW CONSULATE OF LOS ANGELES. Señor Don Francisco Echevarria has been designated as Chilean consul to Panama.

The department of industry has founded a RAILROAD HOSPITAL in the government building in the Alameda station for persons suffering from railroad accidents and for employees who become ill in the railroad service. A RAILROAD HEALTH SERVICE has also been inaugurated. Hospital cars have been added to certain passenger trains to carry the sick. This service was commenced on the first section of the main line and on the railroad from Arica to La Paz.

COLOMBIA.

AN EXHIBITION OF PLANTS AND FLOWERS took place in Bucaramanga on the 5th of July and lasted until the 7th. It was organized by the Society of Civic Improvement.

The departmental assembly of Caldas passed an ordinance approving the census taken in accordance with law 67 of 1918. According to this census THE POPULATION OF THE DEPARTMENT OF CALDAS is 428,137 inhabitants, of whom 216,041 are males and 212,096 are females.

According to the census taken in accordance with law 67 of 1918, the POPULATION OF ANTIOQUIA is 817,554 inhabitants which represents an annual increase of 206 per thousand since the census of 1912.

Last July an aviator from the United States MADE AN EXHIBITION FLIGHT over the city of Barranquilla, and several flights from this port to other points in the Department of the Atlantic. This awoke such enthusiasm that an AERO CLUB HAS

BEEN FORMED to establish a flying field and buy aeroplanes. Barranquilla will be the first Colombian city to own an aeroplane, and will began this important service for the benefit of commerce and the military needs of the country.

In Nechí, between the Departments of Bolivar and Antioquia, VALUABLE INDIAN RELICS have been discovered, some of them being gold and of great value.

The last census of the Department of Naranjo gave a total of 362,934 inhabitants, showing that since 1912 there has been an increase of 70,400.

The Council of Ministers has just approved terms of a contract for the INSTALLATION OF A RADIO STATION IN PUERTO VELILLO or some other suitable point along the coast, the station to be of sufficient power to maintain communication day or night with the international station to be installed in Bogotá by the Marconi Wireless Telegraph Co. This company is also to install a station in one of the islands of the Archipelago of San Andrés and Providencia.

The city government of Cartagena has approved the contract for the installation of a modern TELEPHONE SYSTEM in the city.

In July DIRECT TELEPHONE SERVICE was established between Bogotá and the port of La Dorada.

CUBA.

A Habana daily paper says that within a short time Habana may count on TWO NEW RACE TRACKS—one for horses and one for automobiles.

The summer of 1920 will see the opening of MARIANAO BEACH, a summer resort to be constructed by the Compañía Urbanizadora del Parque y Playa de Marianao. This company has contracted with the Compañía de Construcciones y Urbanización to build 11 chalêts there.

The ASSOCIATION TO PROMOTE TOURING IN CUBA has lately been formed with the object of encouraging travel to Cuba, prolonging the season, developing the railroad and steamship lines, constructing a highway through the island from Pinar del Rio to Santiago de Cuba, establishing hotels, and encouraging the small industries and manual arts. This society has as members a group of prominent business men who are interested in all its aims.

Presidential decree No. 879 of the 29th of June REORGANIZES THE SANITARY AND VETERINARY SERVICES and the engineer, signal, artillery, and aviation corps.

Dr. Carlos Edied has been appointed INSPECTOR GENERAL OF THE CENSUS of the Republic.

The department of government has commissioned Col. Charles Hernández, director general of communications of the Republic,

to go to the United States to study the means of perfecting a MAIL AND PARCEL POST AIR SERVICE between Cuba and the United States.

The President has signed the bill of congress to CONSTRUCT AN AUDITORIUM dedicated to the memory of Cuban musicians. The building will contain, beside salons and rooms for social uses, a hall with proper acoustics for musical entertainments and concerts.

DOMINICAN REPUBLIC.

According to official figures given to the Dominican press by the director general of statistics on the VITAL STATISTICS of the Republic in 1918, in that year there were 41,072 births (21,136 boys and 19,936 girls) and 10,071 deaths (5,276 males and 4,795 females), making a total increase of 31,001 in the population. Marriages recorded during the year numbered 3,737. The provinces in which the greatest number of births were recorded in 1918 were Santo Domingo, 6,165; La Vega, 5,560; Azua 5,206. The provinces with greatest mortality were Santo Domingo, 1,617; Seybo, 1,384; Santiago, 1,162; La Vega, 1,049; and Pacificador 1,040.

The number of IMMIGRANTS TO THE REPUBLIC IN 1918 were 4,988, showing a falling off in immigration in comparison to previous years, with the exception of 1914, when there was less. In 1918, 4,005 males, and 983 females entered the country, of whom 1,425 were married and 3,563 single; 2,157 white and 2,831 of other races; 4,606 could read and 382 were illiterate; 4,616 were foreigners and 372 were Dominicans. The difference between the number of entries and departures shows a balance in favor of the population of 2,706 persons.

ECUADOR.

The executive power has approved a contract made between the governor of the Province of Azuay and Dr. Remigio Romero Leon, under which the latter agrees to write a general HISTORY OF THE PROVINCE.

The ASSOCIATION OF EMPLOYEES of Quito, which was recently organized, has more than 500 active members.

Under the presidency and with the assistance of the minister of Colombia in Ecuador, the COLOMBIAN BENEFICENT SOCIETY was organized in the national capital. This society is similar to the one founded some time ago in Guayaquil, the president of which is the consul of Colombia in that port.

About the middle of June of the present year construction work on the large building destined to be the seat of the NORMAL INSTITUTE, "Juan Montalvo," in the city of Quito, was begun. The inaugural ceremony was presided over by the President of the Republic.

According to data published by a Chilean stock review, Ecuador has at the present time four HIPPODROMES, namely, two in Quito, one in Riobamba, and one in Guayaquil.

GUATEMALA.

The Guatemalan press announces the appearance in the capital of the second volume of **CENTRAL AMERICA'S HISTORY**, the work of the well-known Guatemalan writer and jurist, Senor Licenciado Antonio. The new volume contains 28 chapters, embracing all the colonial period of Guatemala up to the time of the Declaration of Independence of the United Provinces of Central America.

The Guatemalan physician, Dr. Alberto Madrid, has written a **TREATISE ON YELLOW FEVER** which will be published in pamphlet form by the Rockefeller Institute of the United States.

In Tontonicapan a public subscription has been started to collect funds to erect a **STATUE TO DR. LORENZO MONTOFAR**, a distinguished Guatemalan statesman, in the Plaza which bears his name.

By presidential decree of June 28, the 29th and 30th of June and the 1st of July were declared national holidays in honor of the signing of the treaty of peace at Versailles.

On June 27 **THE NEW MINISTER FROM SALVADOR TO GUATEMALA** was formally received by the President.

RECONSTRUCTION STAMPS of 12½ centavos and 25 centavos, provided for by presidential decree of April 12, have been put in circulation as an additional tax for the maintenance of the national postal and telegraph services.

Senor don Ricardo Gomez Carrillo has been appointed **CONSUL GENERAL OF GUATEMALA** to Barcelona, Spain.

HAITI.

According to press information there is now an **AIRPLANE STATION** in Gonaives. Similar stations will be established in the near future in St. Michel and Mirebalais.

Col. Wise has been appointed commanding officer of the **HAITIAN GENDARMERIE** to succeed Gen. Alex S. Williams, who has returned to the United States.

The Council of State has passed a bill recognizing as the **HAITIAN NATIONAL HYMN**, "La Dessalinienne," a patriotic song which enjoys great popularity throughout the country. "La Dessalinienne" was sung for the first time in 1904 during the celebration of the centenary of the declaration of independence.

MEXICO.

Early in August, 1919, an **EXPOSITION OF FLOWERS**, fruits, and vegetables was held in Coyoacan, a suburb of the city of Mexico, under the auspices of the department of agriculture.

Newspaper reports state that an OFFICER OF THE COLOMBIAN ARMY has been detailed to the city of Mexico to study the Mexican military system, and particularly the aviation branch of the service. The object is to establish an exchange of military students between Mexico and the South American countries.

The director of the national railways has arranged to send THROUGH CARS, via Laredo, from stations in Mexico to points in the United States. At the present time a journey can be made in Pullman cars from St. Louis to Mexico City without change.

A number of ladies of the federal capital and of the different states of the Republic have requested the President to grant permission to bring the remains of GENERAL PORFIRIO DIAZ from Paris to Mexico for interment.

About the middle of August last the fine building of the SUPREME COURT, situated on Avenida Juarez in the city of Mexico, was occupied as the permanent quarters of the Department of Justice in the capital of the Republic.

The committee from the bureau of anthropology appointed to prepare a monograph concerning San Jaun Teotihuacan, covering important investigations of the races which probably occupied that region, has been very successful in its excavation work, inasmuch as it has found two large GRANITE HEADS OF QUETZALCOATL in the great mound known as the "ciudadela," or citadel. These are the first monoliths of historic value to be found in that place. The heads, which are decorated with feathers, are a meter long by 65 centimeters wide, and lend color to the supposition that they come from some temple of the Nahoia race, which was one of the earliest inhabitants of that vicinity. Various hieroglyphic inscriptions were also encountered. These will be studied in detail.

NICARAGUA.

The municipality of Managua has decided to install an INCINERATOR on the south side of the town in order to improve the hygienic conditions of the city.

A new ANTIHYDROPHOBIA INSTITUTE has just been completed in MANAGUA. Mention was made in a previous number of the Bulletin of the proposal to found the institution which is now in operation with all the benefits of a modern laboratory and equipment. The institute is a branch of the Hospital of Managua, and under the direction of the Committee of Public Beneficence.

PANAMA.

By contract made with the Treasury Department the International Banking Corporation of the United States has promised to sell in its main office in Panama city and also in all its branch offices DOCUMENTARY AND OTHER REVENUE STAMPS which all articles

of national manufacture or foreign production must bear, the taxable articles being native and foreign liquors, cigars, cigarettes, perfumes, and cards, and foreign beer.

According to presidential decree the profits of the lottery drawings in Bocas del Toro will be devoted exclusively to the maintenance of the CHARITY HOSPITAL of that city.

The President has approved a decision of the general management of the mails and telegraph lines, effective on July 9 last, to divide the territory of the Republic into six sections to IMPROVE THE TELEGRAPH SERVICE, and designating the central telegraph and telephone offices of each section.

The Official Gazette of the 22d of July publishes a REPORT CONCERNING SITUATION IN THE PROVINCES of Cheriquí, Veraguas, Herrera, Los Santos, and Coclé, which has been presented to the President with recommendations in regard thereto.

PARAGUAY.

The Paraguayan consul general in Vienna, Austria, Señor Leo Hirsch, recently gave a lecture before the Imperial and Royal Geographical Society of Vienna. According to the account, various consuls from South American countries as well as the members of the society attended the lecture, which had for its subject the rich opportunities for development offered by Paraguay in industrial, natural resources, and business lines.

The minister of the treasury, on June 21, issued a decree depositing 150,000 pesos to the special account opened with the general accounting bureau as "Accounts of the occupation of the German ships."

The Central Railroad Co., at the request of the minister of industry, has decided to reduce the second-class railway fares 75 per cent for the benefit of laborers going to the interior to work. Tickets of this kind will be procured from the department of labor.

The minister of industry will appoint a commission to consult with the national council of administration on the subject of the HIGH COST OF WHEAT and bread.

PERU.

The President during the last of June authorized the building of an INTERNATIONAL BRIDGE over the Macará River for the purpose of facilitating trade between Peru and Ecuador. As the southern provinces of Ecuador now export to Peru merchandise and products worth 1,000,000 soles (sole equals \$0.486) and Ecuador's importations amount to 500,000 soles, the bridge will be an important step in the development of commercial relations between the two countries.

A company with a large capital has been formed in Lima to establish a LONG-DISTANCE TELEPHONE SYSTEM throughout the country. To begin the service as early as possible the company has decided to commence the construction of the lines from several different points in the Republic at the same time. When these trunk lines are completed other lines will be extended to the north to Piura and Cajamarca; to the south to Arequipa, Cuzco, and Puno; and to the interior to Cerro de Pasco, Jauja, and Huancayo, thus crossing almost all of the Republic. The new company will connect with all the other telephone lines now operating in the country, enabling its subscribers to communicate with persons on the old telephone lines. The work of installing the new system will be under the direction of an American engineer, an expert in the telephone installation.

The inaugural session of the charitable organization known as the SOCIETY FOR THE PROTECTION OF CHILDHOOD was held the last of June in the assembly room of the municipality of Lima.

On the 28th of July the ninety-eighth ANNIVERSARY of the independence of the Republic was celebrated extensively in the capital and the larger towns throughout the country.

The 1st of August A FRENCH MILITARY MISSION engaged by the Peruvian Government to instruct the army arrived at Lima.

SALVADOR.

The National Assembly on July 4 declared the 28th of June a NATIONAL HOLIDAY in honor of the world peace.

The 4th of July was the ninety-fifth anniversary of the drawing up of the FIRST CONSTITUTION OF EL SALVADOR, passed by the national congress of July 4, 1824, when the supreme chief of state was Don Juan Manuel Rodríguez. The constitution divided the state of El Salvador into four departments—San Salvador, San Vicente, Sonsonate, and San Miguel.

URUGUAY.

The national congress passed a law making the 16th of June a NATIONAL HOLIDAY, as it was the birthday of Gen. José Artigas, founder of the Uruguayan Nation.

The Central and South American Telegraph Co. has obtained from the Uruguayan Government a concession to bring into the city of Montevideo CABLE TELEGRAPH LINES from Rio de Janeiro and from Santos, or from either one of those cities. This company had previously obtained a concession to construct the line between Montevideo and Buenos Aires.

Senor Pedro Manini Ríos has been appointed SECRETARY OF STATE in the department of the interior.

The Rural Federation of Uruguay has decided to erect a STATUE TO THE URUGUAYAN COWBOY as a national figure represen-

tative of the spirit of Uruguayan independence. To this end there will be a nation-wide contest of authors to give a historical and psychological study of the cowboy to serve as an inspiration and basis for the artists who will compete in the contest for the statue.

As veterinary science has made great strides in the country and is now recognized as an important feature of the growing stock business, steps have been taken to hold a PAN-AMERICAN VETERINARY CONGRESS in the Veterinary School in Montevideo. The congress will be attended by veterinarians from all the countries who will take up the question of animal diseases generally prevalent.

VENEZUELA.

THE NEW MINISTER FROM MEXICO, Señor don Gersian Ugarte, was officially received by the President of the Republic on July 22.

A presidential decree of July 22 created the new office of INSPECTOR OF CONSULATES of the United States of Venezuela and Señor don César Zumeta was appointed to fill the post.

According to newspaper notices, a NATIONAL EXPOSITION for agriculture, stock raising, industry, and the fine arts will be held from December 19 to the 8th of February, 1920, in Caracas.

By order of the Provisional President of the Republic on the 30th of July Dr. Pedro César Dominici was appointed envoy extraordinary and MINISTER PLENIPOTENTIARY from the United States of Venezuela to Great Britain.

On the 5th of July an EXHIBITION OF WOMEN'S WORK was held in the Union Club of Barquisimeto. The exhibition was well attended and many valuable prizes were contributed by people of the neighborhood.

From the 26th to the 28th of January, 1920, in accordance with a decree of the President, the CENTENNIAL OF THE BIRTH OF MARSHALL JUAN CRISOSTOMO FALCON will be celebrated throughout the State of Falcón.

IN HONOR OF GENERAL FRANCISCO DE MIRANDA forerunner of Venezuelan independence, the President has ordered that the painting, "Miranda at Caracas," the work of the Venezuelan artist, Arturo Michelena, be hung in the reception salon of the ministry of foreign relations.

The 24th of July, birthday of the liberator Simón Bolívar, was celebrated in Caracas by the inauguration of several public works carried to completion by the administration in the city. They were THE AQUEDUCT; the new building of the INSPECTOR GENERAL'S DEPARTMENT OF THE ARMY; a swimming pool in the federal school, "Zamora"; and THE ISOLATION HOSPITAL. The first mentioned consists of the canalization of the aqueduct of Macaro, the construction of the Cotiza aqueduct, and the redistribution of water in the northern part of the city. The new home of the inspector general's department is a fine building of two stories, located at the northeast side of Miraflores corner. It cost 561,060 bolívares (bolívar equals \$0.193). The isolation hospital was built by the department of public works in accordance with presidential decree of January 24 and according to the specifications of the health department. It is situated on ground adjacent to the township of Rincón del Valle and consists of two parts—one for the admin-

istration and quarters for the Sisters of Charity, and general service, the other for the hospital proper, where patients with infectious diseases will be sent.

A VENEZUELAN CONSULATE GENERAL IN CUBA has been created and Senor don Rafael Angel Arráiz appointed to fill the post.

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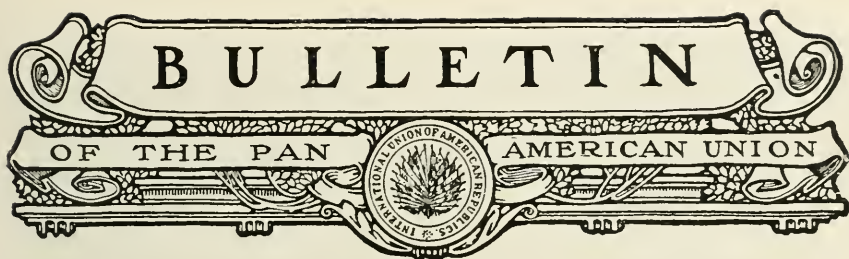
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MOONLIGHT ON THE BAY, PUNTA ARENAS, CHILE.



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COLOMBIA CELEBRATES CENTENNIAL OF BOYACA¹

COLOMBIA has just celebrated the centennial of the battle of Boyaca, which brought to a victorious close the campaign for freedom of 1819. That triumph of Bolívar and Santander with their army of natives of New Granada and Venezuela, which gave liberty to New Granada and birth to the Republic of Colombia, is a military feat which history recognizes as of the greatest importance to the liberty of South America, since it was the decisive point in a campaign which later liberated half a continent.

Colombia, hampered in business on account of the world war just at the time when the country was entering upon an epoch of stable prosperity, was not able to give to her national centennial celebrations the magnificence and splendor that she desired; but according to her resources, and with that public spirit that has always characterized the Colombian people, she celebrated the centennial of Boyaca with means that, though modest, were satisfying to the national sentiment. From Bogota to the smallest town all did honor to the days from the 6th to the 10th of August. The following is a review of some of the celebrations that took place in the nation's capital, and in the city of Tunja, capital of the Department of Boyaca.

Bogota, illuminated in artistic forms, with many thousands of lights in its streets, plazas, and public buildings, presented a festive appearance. Everywhere there was a profusion of flags and flowers. The national tricolor floated not only from the government buildings, but from all the balconies of Bogota, and was always the principal motif of decoration, from the monuments of patriots adorned with

¹ English version of the account contributed by the minister of foreign relations of Colombia.



THE CENTENNIAL OF BOYACA IN COLOMBIA.

School children's festival in the Bosque de la Independencia of Bogotá, which took place during the celebration of the centennial of the battle of Boyaca.

severe elegance to the show windows of the stores, where pictures, firearms, uniforms, autographs, and varied relics of the independence were on exhibition.

The festivities were opened on the night of August 6 in the beautifully decorated presidential palace of Carrera, by the banquet tendered by the President of the Republic, Señor Suárez, to the diplomatic corps and other distinguished guests.

The new building of the Colombian Academy, facing the Avenue of the Republic, built on classic lines in harmony with the character of the learned body for whom it was designed, was inaugurated with a largely attended evening entertainment. The program was interesting, including an address by the director, Monseñor Carrasquilla, on the subject of the nation's glorious deeds; the reception of academician Señor Abadía Méndez, and his address, to which the academician Señor Holguín y Caro responded; and a eulogy on Pérez Triana read by Señor Eduardo Zuleta.

In the building of fine arts in Independence Park the exhibition of paintings for 1919 was opened. The works of art showed a notable improvement over those of previous exhibits, as the artists had chosen subjects which presented difficult problems in technique, solving them in a masterly way. The most notable pictures were the work of the following artists: Borrero, Zamora, Días, Gómez, Campusano, Cano, Villá, Núñez, Borda, Portocarrero, María Antonia Cuervo, Villareal, Santos, Arcila, etc. The exhibition showed a fortunate reaction toward national subjects, historical events in particular. One of the historical deeds portrayed was the crossing of the army of the Liberator over the heights of Pisba, the work of Cano; another interesting subject was a panorama of the battle fields of the Pantano de Vargas, by Zamora.

The Quinta de Bolívar, which the government presented to the Liberator in 1820, and which was occupied by him at various times, is situated to the east of Bogota, and is still intact. The purchase of this property was brought about by the Society of Fine Arts and the Academy of History, and it has been converted into a museum devoted to Bolívar. The opening of this museum took place during this national holiday period before a large gathering. There was an exhibition of pictures of famous statesmen of Colombia, many being of great value. Specially invited guests at the opening ceremonies were the diplomatic representatives of Venezuela and Great Britain, the former responding to the address of Señor Raimundo Rivas, academician of history, who represented the government. Señor Alfredo Robledo, member of the same academy and representing the Society of Decoration, made an eloquent address delivering the museum to the people of Colombia. The Quinta de Bolívar was declared a national memorial from that date and will be a most in-



BOGOTÁ DURING THE CENTENNIAL OF BOYACA.

Upper photograph: Night view of the Plaza de Bolívar of Bogotá during the centennial celebration of the battle of Boyaca. Lower photograph; Group of the Colombian Army who participated in the celebration.

teresting spot for pilgrimages, not only for the five Bolivian nations, but for all travelers interested in the glorious deeds of the independence and particularly in the historic figure of the Liberator, whose glory grows with the passage of time, for he belonged not to one country, nor to one continent, but to the whole world.

The senate received the law, returned and signed by the President, in which the nation conveyed its homage of admiration and gratitude to the British legion which shared the fortunes of war of the Liberator's campaign of 1819. President Suárez, to sanction the law, signed it on the 7th of August on the very field of the battle of Boyaca.

At a national celebration the people of Bogotá tendered to the ministers plenipotentiary of Venezuela and Great Britain two handsome medals as a token of the cordiality of the people toward the nations the ministers represented.

The Academy of History, whose profitable labors are represented by an extensive series of books and studies, held an extraordinary session in the academy halls of San Carlos. The president of the body made an admirable address, reviewing and giving a historical criticism of the principal events and figures of the great war.

The first national judicial congress was opened, and attended by delegates from the faculty of laws, from judicial clubs, and the tribunals of justice. The personnel of this congress was formed of the ablest lawyers of the country. The minister of foreign relations acting for the President of the Republic, presided, and made the opening speech. Addresses were also made by Señor Antonio José Uribe, president of congress, and the delegate, Señor Lucan Cabellero.

More than 30,000 persons gathered to pay patriotic homage to, Santander. The people made their first demonstration at his tomb and from there passed in an imposing file to the plaza, where the statesman's statue is erected. The parade was led by the military school and closed by an army contingent. President Suárez attended, accompanied by the ministers of his cabinet. A large number of ladies were present, some of them wearing symbolic insignia, being descendents of Gen. Santander or other heroes of the war. Representatives of all the departments of the government and the press were present, as well as delegations from the universities, academies, and corporations who rode in the beautiful allegorical floats that drew the plaudits of the lookers-on all along the Avenue of the Republic. Knox Martin, the aviator, flew over the crowds, strewing patriotic proclamations all over the city and dropping wreaths on the national monuments. When the procession arrived at the Plaza of Santander several orators made addresses, offerings were deposited, and the monument of the statesman was literally covered with flowers.



THE "QUINTA" OF BOLIVAR.

Upper photograph: View of the "Quinta" or estate which was presented to the Liberator in 1820. It is situated to the east of Bogota and has been converted into the Bolivar museum. Lower photograph: Fine Arts Building of Bogota, where the Colombian Art Exhibition for 1919 was held.

In the building of San José, facing the Plaza España, the Industrial, Agricultural, and Stockmen's Exposition, organized by the minister of agriculture and the Society of Agriculturists, was opened to the public. This contest showed more clearly than on former occasions the natural resources of Colombia and the opportunities the country offers for being a great center of commercial activity at an early date. The exhibit of mineral products ranged from soft coal and salt in huge blocks to emeralds, polished and beautifully set. There were many and varied samples of wood, fiber, and rubber. The agricultural products from various parts of the country defied competition, this being especially noticeable in regard to fruit growing, horticulture, grains, plants of the tuber variety, oil-producing plants and those that produce fiber. The sugar industry had an excellent and varied exhibition of products. The tobacco industry showed samples of many kinds of cigars and cigarettes. The textile industry filled various rooms with the exhibition of its notable progress. The farm machinery, cement, and building materials were all of the best. The ceramic art was represented in examples of china, glassware, and majolica of good quality and taste. The arts of bookbinding, printing, and engraving all exhibited examples of their skill. The perfume, soap, and drug trades, as well as the liquor business and dealers in carbonated and mineral waters, were represented by a fine line of samples. The wicker-furniture business exhibited a full line of goods, and the tanning, hide, harness, and shoe industries showed the best of their output. Also many other industries demonstrated the advance made in their own line of production, some of which were oils, hygienic products, wrought iron, silk culture, and fiber fabrics.

On the ground floor of the large building an exhibition of live stock had been arranged, where many fine examples of cattle, horses, sheep, and hogs of the best-known European strains, and raised on the high plains of Cundinamarca, were on view.

The modern gymnasium of education opened its new and magnificent buildings erected in the barrio Chapinero of Bogotá. Its situation, building, and equipment all conform to the requirements of modern educative systems. It will be the home of a scholastic community whose faculty will be of the best. The founders are Señors José María Samper and Nieto Cabellero.

Led by the departmental authorities, an enormous crowd went to meet President Suárez, who on the morning of the 6th went to Tunja, where the festivities took on a special significance. The greater part of the army had also gone to Tunja from Bogotá and other cities. On that day, in the halls of the departmental assembly, there was an interesting exhibit of school work, in the Teatro Municipal the Fourth Medical Congress opened its session with a good



BOGOTA DURING THE CENTENNIAL OF BOYACA.

Upper photograph: Part of the audience at the opening of the Bolivar museum of Bogota, which was the estate of the Liberator, on the outskirts of the city. Lower photograph: Homage to Santander, one of the heroes of the battle of Boyaca.

attendance. Later the official reception took place in the Government Palace, the governor and other distinguished persons accompanying the President.

On the 7th of August the reception committee, in a hundred beflagged automobiles, and followed by throngs in all kinds of vehicles and on horseback, set forth from the city of Tunja. On the bridge of Boyaca, the site of the great battle, President Suárez read to some 70,000 people a patriotic address. The presidential stand was located next to the commemorative monument, which has been beautifully restored. It contains four busts of heroic size representing Santander, Anzoátegui, Sublette, and O'Leary. After the President's speech a few words were spoken by members of congress, the Venezuelan minister, and delegates from other cities. Thereafter followed the offering of wreaths and the presentation of commemorative medals of gold and silver to the representatives of official delegations.

The field of Boyaca for a mile and a half round about showed the hills lined with spectators, who, having seen the first ceremony, hastened to view the military maneuvers. First the Special Bulletin of the General Staff of the Army referring to the campaign of Liberty was distributed; then a detachment of the army in 15 minutes reconstructed the historic bridge at the same point where the Spanish troops defended it; next the army forces began to reconstruct the plan and positions of the memorable battle, which was carried out with great care according to the instructions of the general staff, who had made a detailed study of the terrain and prepared the plans for the maneuver. The spectators, whose enthusiasm was aroused by the sight, cheered the army, and the battle field of Boyaca once more resounded with victorious shouts and applause.

The great civic procession took place on the 8th. Official committees, corporations, decorated floats, and the military forces paraded through the streets of the city, passing before the residence of President Suárez, who, with distinguished officials, reviewed the procession from the balcony.

On the evening of the 9th the salons of the Government Palace were thrown open for the grand ball given in honor of President Suárez, his cabinet ministers, and the medical congress. It was a successful and brilliant affair and attended by more than 900 invited guests.

Every city and town in Colombia celebrated the centennial of Boyaca according to its possibilities, many of them inaugurating works of art or public utilities, as the following items show.

The city of Cúcuta was filled with visitors from all over the department and from the Venezuelan State of Tachera. The governor and a military mission from that State attended the festivities in the city



ON THE FIELD OF THE BATTLE OF BOYACA.

Upper photograph: View of the field of the battle of Boyaca during the celebration which took place on August 7. The monument in the center of the picture is the one erected to commemorate the victory.
 Lower photograph: One of the military maneuvers representing the attack of the patriots against the bridge, executed on the famous battle field during the centennial celebration.

of North Santander, and were very cordially entertained. A new street car line, a new highway, a public library, and a long-distance telephone from the city to the town of Concordia were all inaugurated during the holidays.

In Bucaramanga an art exhibition was opened at the García Robría Club, and afterward a ball was given by the Commercial Club. A new cross street between the Avenue del Norte and the Avenue de Comacho was opened and named "Seventh of August." A permanent commercial and industrial exposition was opened, which is to advertise the products of the province of Santander. An original and brilliant social celebration marked the opening of the garden of the Republic in the Plaza de Santander; a map representing Colombia and its 14 departments was traced on the ground, and each plot representing a department was given to a group of ladies and gentlemen to cultivate and beautify.

In Ocaña a monument was erected to the illustrious statesman José Eusebio Caro. The league of the province of Acaña was formed to push commercial enterprise in all the towns of the province.

The commission sent by the government of Cauca to deliver the ashes of the statesman Caicedo y Cuero, of the period of the independence, to the city of Cali, was headed by the famous literateur, Guillermo Valencia. A solemn and impressive reception was given to the remains of the statesman by the municipality, and a banquet tendered to the commission. A popular school was also opened to teach the trade of hat making. In Facatativa a library and a students' museum were opened to the public. On the 7th, in the same city, there was a grand civic parade, attended by some 20,000 persons. In Guayata the electric-light service was inaugurated, as well as a new house of correction, two school buildings, and five shops of manual trades.

The Colombian government received through the department of foreign relations many congratulations from the governments of South America. Venezuela and Ecuador also celebrated the 7th of August as a national holiday, and in Caracas and in Quito there were great celebrations in commemoration of the battle of Boyaca.



POST-WAR WORK OF THE AMERICAN RED CROSS¹

EUROPE did not cease to be working ground for the American Red Cross when the bugles sounded truce across its battle fields and the guns were suddenly silent. Death and danger and despair, suffering and sorrow, were not ended with the signing of the armistice. To the soldier in the line the 11th day of November, 1918, meant relief from the trenches and a marching down to rest billets; to the women of the world it meant a prayer; but the American Red Cross could neither stop to rest nor pray. True, it marked the visible end of overcrowded hospitals, close-to-the-line work, rolling canteens, field kitchens, dressing stations, and the activities connected with actual warfare, but it marked the beginning of its fight against the results of the years of terrible conflict. It could pause only long enough to change from soldier to civilian relief.

The removal of the war-time restrictions left the Red Cross free to carry on the obligations it had assumed. Foreign relief commissions were soon in action or on their way to activity in all the war-scarred lands—Asia Minor, Siberia and Greece—as well as in those places lying in the western fighting areas, where the Red Cross had long been identified. The great war was widespread. It did not confine its effects to any particular part of the world. It was like an unholy pestilence that spread wherever people lived, and sometimes suffering increased with the square of the distance from the battle zone.

Work in the three initial foreign fields of the American Red Cross—France, Belgium and Italy—has been practically brought to a close so far as civilian relief is concerned. In France, where a few American troops still linger, there is service for the soldiers; but it is now eleven months since the signing of the armistice and four since the conclusion of peace, and the work that grew out of the needs in the devastated areas has gradually lessened and changed in character. Activities, such as child-welfare, antituberculosis work, etc., begun by the Red Cross, have been placed in the hands of native agencies now able to carry them on. This is also true of Italy and Belgium. In Italy there were but few American troops and in Belgium none. The program developed in those countries has served its excellent purpose, and the endeavors now lie in farther fields where they are being carried on with new strength developed from war's terrible experience.

¹By Winifred Stump.



Courtesy of the American Red Cross.

THE RED CROSS HOSPITAL AT JERUSALEM.

After the opening of this hospital in June, 1918, clinics were established in four outside centers as well as in the city.



THE RED CROSS RECEIVING DEPOT AT MACEOWICE, POLAND.

This was one of the "cleansing centers" of Poland to which the natives were required to come for disinfection.



Courtesy of the American Red Cross.

PRISHTINA, SERBIA.

Nine hundred children and adults were fed every day at Prishtina, and even greater numbers were given clothing and medicine. The upper picture shows a section of the devastated village; the lower, the children lined up for breakfast, with Miss Ruth Evans, of the University Club, New York City, in charge.

In the Balkans, where units have been at work since the late months of 1917, it was practically impossible to do any constructive work for relief on a broad scale until after the fighting ceased. True, the American Red Cross had gone into desolate Serbia, and a commission had been sent into Rumania, going north to Jassy, the war-time capital, where it endeavored to meet the desperate situation that conditions presented. With the capitulation of that country, however, in the early spring of 1918, it became impossible for the Red Cross to remain, so that it was not until after the signing of the armistice and the formation of the new Balkan commission that further relief could be undertaken there.

The first relief ship to reach Rumania entered the port of Kustandje (Constanza), on the Black Sea, carrying 500 tons of food, 53 workers, 20 camions, 10 mobile kitchens, and a supply of medicines, surgical needs, and clothing. Twelve other vessels have since docked and supplies have been sent overland. Two canteens are in operation in Bucharest, the capital—one for the indigent civilian population, the other for soldiers. A canteen at Jassy feeds 2,000 daily. A "food boat" plies the Danube, reaching the remote inland towns through the river cities. Up to the present time 6,000 or 7,000 tons of foodstuffs, exclusive of 50,000 tons of flour, 900 tons of condensed milk, and 3,000 tons of fats, have reached Rumanian ports, and are being distributed as rapidly as possible. Some is being sent into Transylvania, former Hungarian territory ceded to Rumania under the terms of the peace, for the Rumanian troops in occupation. Farmers are being provided with seed and American farm machinery. Rumania was once the "granary of Europe." At the present time, 20,000 orphans are under Red Cross protection, many of whom were practically running wild until the Red Cross gathered them into shelters. Temporary houses are also being erected throughout the devastated areas.

In the Dobruja, skirting the Black Sea, six Red Cross specialists are fighting typhus and smallpox by assuring proper treatment to the patients and by cleaning up villages and villagers—a process that includes "delousing," bathing, and the sterilization of all clothing. In Serbia, again, the problem has been refugees and typhus. Following the great retreat of 1915, when 100,000 Serb troops perished in the Albanian hills, there was a concentration of refugees around Monastir and through the Macedonian plain. The war came into Serbia bitterly, and left untold sorrow and want and pestilence behind. The land was stripped of its grain, horses, cattle, food and metals. There was nothing left. Relief work is now being conducted in Belgrade, the capital, on the southern shore of the Danube. Soup kitchens are established, barracks set up, and sewing rooms opened, giving employment to refugee women and girls, and, of course, the usual quota of hospitals and dispensaries are in operation. There



Courtesy of the American Red Cross.

RED CROSS WORKERS OF ARMENIA.

Armenian peasant girls who plied their skillful needles in the Red Cross workrooms.



Courtesy of the American Red Cross.

THE RUSSIAN ORTHODOX CHURCH AT WARSAW.

Built just before the war at a cost of \$5,000,000, this magnificent church is now used as barracks for the Polish troops.



Courtesy of the American Red Cross.

KAVALA, ON THE ÆGEAN SEA.

At this Macedonian port tons of Red Cross supplies entered and were distributed through the interior.



Courtesy of the American Red Cross.

THE RED CROSS PLAYGROUND AT BELGRADE.

Keeping the children happy as well as clothed and fed was an activity of the Red Cross during the war time.

were no medicines or surgical requisites and no hospital comforts, even of the simplest sort, left in Serbia. There is a Red Cross center in Nish, from which supplies are sent south and west into the hill country, into Prishtina, the village, and Prizrend, the city, lying close to the Albanian border, and through the new confines of Yugoslavia.

In Pratchevo, with its Turkish air; in Palanka, where typhus has been conquered, in Skoplje, which clings to its Turkish name of Uskub; in Sarajevo, where on a day in June, 1914, the spark fell into the tinder box which set the world on fire, the American Red Cross is making regular distribution of food, clothing, and medicines. In the larger towns canteens for the school children have been established, assuring one hot meal a day for these small scholars in an empty land. The Red Cross has also given aid to the Serb prisoners who poured across the frontiers, and also to tuberculous Serbs in sanatoria in France, Switzerland and Italy. The relief program now in force will continue until such time as the country feels capable of taking over the task of self-rehabilitation.

A great deal that is of interest must needs be slighted in compressing the story of the present activities of the American Red Cross into a few words. Let us look southward into ancient Hellas, that cradle of art and classic antiquity, whose finger prints are visible through the ages wherever men have tried to live greatly.

At the close of the year 1917 the Greek Red Cross appealed to America for aid. There were 50,000 refugees on the Aegean islands, driven out of Turkey and Bulgaria. There was an appalling dearth of food, clothing, surgical dressings, hospital equipment, etc. By the time the authorized relief commission reached Saloniki the Balkan equation had changed. Bulgaria had capitulated; the flag of the Christian was over Jerusalem; the end was in sight. It was, therefore, with higher hopes, that the American Red Cross took up the work in Greece.

In the city of Athens centers for the care of children of employed mothers were opened, and a daily milk ration provided. Sewing rooms are now in operation in all of the larger towns of Greece and Macedonia, as well as on many of the Aegean islands. A number of Greek women have been instructed in home hygiene and child welfare, assuring the introduction of these simple sciences into the Greek homes as they had been introduced into the peasant homes of France and Belgium.

Just across the shallow sea that separates the Balkans from Asia Minor there were "1,500 Armenian exiles wandering through the wilderness east of the Jordan, trekking toward Jericho; 6,000 Syrians straggling along the roads from Es Salt." In the face of all precedent the American Red Cross could not remain on the western coast of the Aegean. In June, 1918, it went into the Holy Land. By that time British engineers had already vastly improved the sanitary condi-



Courtesy of the American Red Cross.

THE RED CROSS CARRYING SUPPLIES IN SANTA CLAUS LAND—NORTHERN RUSSIA.



Courtesy of the American Red Cross.

INTERIOR OF A RUSSIAN PEASANT HOME, WHERE RED CROSS AID WAS WELCOME.

tions of the country. In Jerusalem fresh water from the hills was being brought down into the city through the medium of modern plumbing, and the filthy, though picturesque, waterskins had disappeared from the streets. The first work undertaken was among the refugees crowded into Jerusalem, housed in various old buildings and tented in the vacant spaces. Fifteen hundred women—Moslem, Jewish, and Christian—were put to work in Red Cross industrial workrooms. Ten refugee centers were eventually established in the city and three orphanages were taken over. Six hundred orphans, formerly in charge of British relief agencies were placed under the care of Americans, and a liaison was effected with the Zionist Unit for the relief of suffering Jews. Following the opening of the American Red Cross hospital a number of clinics were opened in the city and in four outside centers.

Work of a similar nature was conducted in five centers in the Holy Land. At Wadi-Surer, where 2,000 refugees were living in tents on the plain, a school is in operation in Nazareth. Indigent farmers have been provided with ox-teams. All the routes to Asia are open now, and supplies can keep on going through without cessation.

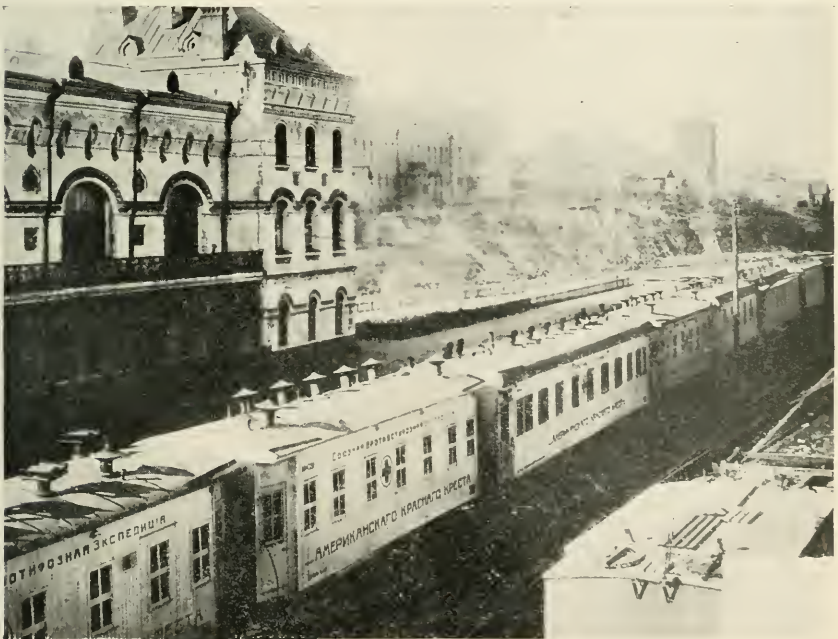
In the European theater of the American Red Cross effort there is still Poland, across which the armies of Russia and Germany swayed for three years—Poland, newly carved out of the chaos of mid-Europe. It was impossible, of course, for the American Red Cross to go into Poland until after the armistice, and it was March of 1919 before the commission gained entrance to that desolate land with its 400,000 refugees, 200,000 of whom were mothers and children. There was work enough in the city of Warsaw alone. Operating from the Polish capital and Bialystok as centers, the American Red Cross has succeeded in organizing relief throughout the region drained by the Vistula and upper Bug Rivers. Typhus, which in some parts of the country has decimated the population, is now under control. Maccowice and Dolsk are "cleansing centers," to which the villagers come on stated days for miles around and are given disinfecting baths and clean clothing. The heads of the men and all children under eight are close shaven. Only by such drastic methods can Poland be freed from the menace of disease. The war orphans are being gathered up as they stray in from all parts of the land, and placed in hostels under Red Cross support. The Polish army, which is still mobilized, has received assistance in the way of underclothing and shirts, while the wounded have been assured of hospital supplies, proper medicines, and clothing. Seven tent hospitals of the United States Army type were presented to the Polish Government. In the university towns of Cracow, Lemberg, and Warsaw a 100-bed memorial ward has been established in the leading hospitals for the benefit of Polish medical students, who, in the past, have been seriously hampered in their studies for lack of clinical facilities. A condition of this gift provides



Courtesy of the American Red Cross.

TINY BENEFICIARIES OF THE RED CROSS IN THE ARCTIC.

One of the most important activities of the American Red Cross in the Archangel district was supplying the school children of destitute natives with nourishing luncheons.



Courtesy of the American Red Cross.

A SECTION OF THE RED CROSS ANTITYPHUS TRAIN.

With a personnel of Red Cross doctors and nurses and stocked with medical supplies of every sort, this "great white train" has covered over 4,000 miles through Siberia, ministering to soldiers and civilians.

for the treatment of any American in Poland who may at any time need hospital care. It will take time and infinite patience to bring about lasting results in Poland. That the problem will finally yield to consistent and steady relief is inevitable.

In Russia and Siberia, as may be readily surmised, relief work was rendered doubly difficult owing to the political and social strife of the country, and the first commission which went into Russia in July, 1917, during the Kerensky régime, was compelled to withdraw, with the exception of a small personnel, which remained through the darkest days of civil disturbance in the cities of Petrograd and Moscow, distributing milk to the children, until those cities, too, fell under the ban.

It was well into 1918. Czech, French and American troops were being sent into Siberia. The United States consul at Harbin called for relief for the native and foreign refugees pouring through northern Manchuria. This condition, coupled with the needs of the troops and the unfortunate plight of Russian prisoners straggling back across the borders into their strange, new motherland, gave sufficient justification for the appointment of a special commission to Siberia. An American personnel was summoned from Japan, and shiploads of food, clothing, and medicines (the three emergency relief staples) were sent from our western ports, and from Red Cross chapters in Japan, China, and the Philippines. On Russian Island, a dot of land $2\frac{1}{2}$ miles out in the harbor, a military hospital for Czech troops was set up. Refugee barracks accommodating 2,000 were established at First and Second Rivers, near the city. Sewing rooms gave employment to hundreds of refugee women who were able to make garments out of material supplied by the Red Cross. Sanitary trains accompanied the Czech army into the interior, while an "antityphus train," staffed by physicians and nurses, financed by the allied powers and equipped and managed by the American Red Cross, was sent over the trans-Siberian rails into the typhus-infected region. A field canteen and a station canteen, in which American women served, were set up between Harbin and the forward fighting lines.

So the great war came to an end with the American Red Cross still in Russia. In Archangel, where American troops were stationed, a new commission carried supplies into north Russia in October, 1918, along the Murmansk front, where destitution and hunger abound, and along the eastern coast, with headquarters at Vladivostok. Within the last few months the Czech troops have been going home, accompanied by small Red Cross personnel, some westward, through the Seven Seas, others eastward, across the Pacific to San Francisco, their ultimate destination the port of Trieste on the Adriatic. Conditions in Russia, so far as we outside can judge, have apparently undergone little change since the conclusion of peace, and the need of the American Red Cross still remains.

STANDARD OF PIZARRO¹

IT is well known that the famous banner which Pizarro carried to the conquest of Peru has been the subject of many and varied versions of its history, founded on the existence of several penons of apparently unquestionable authenticity which each historian cites in support of his own particular story.

Naturally, Gen. San Martín, his family, his friends, his biographers, and the historians of the extreme south were convinced that the victor of Chacabuco possessed during his lifetime and preserved until his death in Europe the conqueror's standard. This erroneous belief was discarded when don Ricardo Palma published data relative to the authentic gonfalon, with the arms of Charles V on one side, and on the other the Apostle St. James, the flag preserved in Cuzco in the ancient temple of the sun, converted by the conquistadores into a Catholic temple. Certainly the municipality of Lima presented to Gen. San Martín, by act of April 4, 1821, an ancient Spanish standard which the councilar body declared to be the standard of Pizarro. The protector did not doubt its authenticity, for in his farewell proclamation addressed to the Peruvians on the 20th of September, 1822, he said: "There is in my possession the standard which Pizarro brought to enslave the empire of the Incas." On this point it is that Gen. Héres, writing his *Apuntamientos*, in his austere style, says that Gen. San Martín laid aside the insignia of supreme power and relinquished them, assuring the people "that he was leaving Peru, taking with him what most honored him and excited his ambition, the banner which Pizarro had brought to Peru." And also on this point it is that Señor Vicuña has said that "much better than those rags (the uniform of the protector), he preserved with zealous veneration the standard of Pizarro, the only spoil of a relinquished reign."

In an additional clause to his will, dated, Paris, January 23, 1844, San Martín said: "It is my will that the standard which the brave Spaniard, Don Francisco Pizarro, bore in the conquest of Peru, be returned to that Republic." A son-in-law of the protector, Señor Balcarce, handed it over, in France, to Dr. Gálvez, Minister of Peru, who took it to his country.

But the fact is that in the same year (1844) the Argentinian, Señor Florencio Varela, saw the standard, and in a description which he gives of it says: "It was of silk, quadrilateral, and of a straw color that seemed to have been faded by time. It was about 11.84 feet

¹ English version of an article by Señor Eloy G. Gonzales, published in *Actualidades* (Caracas) of July 6, 1919.



THE STANDARD OF PIZARRO.

The drawing represents one of the faces of the gonfalon with which the Spaniards under Pizarro made their entrance into Cuzco, the ancient capital of the Incas, on the 16th of November, 1533. The banner was placed in the Temple of the Sun, afterwards converted into a Christian cathedral, and there preserved until the year 1824, when the authorities of Cuzco offered it to Marshall Sucre, victor of Ayacucho, who delivered it to the Liberator, Bolívar. The Liberator presented it to the city of Caracas which guards the precious relic in the Salon of the Municipal Council. The side shown in the drawing, made by the arabesques on the first field of the flag, represents the arms of Charles V, Emperor of Germany and King of Spain.

long and 6.36 feet wide. In the center there is a large shield, about the shape of the Spanish shield on the South American pesos, the border of the shield being red, the center turquoise blue." It was also seen by don Ricardo Palma, when they returned it to Peru, and he said that the shield was in a blue field with a red border, and that it did not have the arms of Spain, but those given to Lima in 1537—three royal crowns and a star. It was the same banner as the royal ensign, and by right of heredity was carried in the processions of Corpus Christi and Santa Rosa, at the entrance of the viceroys, proclamations of the sovereign, and other solemn occasions. "The people of Lima," explains Señor Palma, "mistakenly called this banner the standard of Pizarro, and accepted it without question as the war pennon brought by the Spaniards for the conquest. And as the error descended from generation to generation without contradiction it finally became traditional and historical."

As has been said, the real standard of Pizarro was in Cuzco, in the temple with other flags of the conquest. When Gen. Sucre entered that city on the 25th of December, 1824, there were given over to him by reason of the terms of the surrender of Ayacucho, "the public buildings, archives, war material, flags, and ancient standards, everything that belonged to the government of the colony." From among those flags the marshal took the standard of Pizarro to send it as a special gift to the liberator and thus he told him in a letter of December 30th of the same year, 1824: "I present you with the flag that Pizarro brought to Cuzco 300 years ago; it is only a tattered remnant, but it has the virtue of being the conqueror of Peru. I believe that it will be a trophy worthy of your appreciation." The liberator chose to present the trophy to the municipality of Caracas, and on the 9th of January, 1826, Gen. Soublette, minister of war, addressed that body in the following words: "I have the honor to be the instrument of the Government in presenting the royal standard of Castile, which the Colombian army defeated in Peru under the leadership of his excellency, the liberator president." The municipality received the standard on the 26th of February, and voted to exhibit it to the public of Caracas on the first anniversary of the 19th of April.

By that time, of the two faces of the large arabesques which formed the standard, only the one which contained the arms of Charles V was visible, because the other was covered with white satin in a bad state of deterioration. It is the same side that is seen in the frame on the west wall of the council chamber next to the one of the signing of the act of independence. It shows great arabesques of the fifteenth century, 1.27 meters by 1.15 meters, of yellow and white satin touched with blue and embroidered with gold thread; in the center in a circle of 0.80 meter diameter are the arms of Charles V. of the year 1533;



THE OTHER FIELD OF THE STANDARD OF PIZARRO.

The face of the standard, reproduced in the above drawing, which figured in the conquest of Peru, is 30 centimeters in diameter, and the painting and embroidery represents a warrior mounted on a handsome white horse, running at a gallop, and covered with rich trappings and mail. The knight wears on his head a helmet crowned with plumes; his mantle floats free to the wind; a red cross, that of Santiago, shows on the coat of mail which covers his breast; and he bears in his right hand a sword. The field represents a wide plain, on which are shrubs and plants, helmets and implements of war.

the shield of Castile—two lions, two castles, and the imperial diadem—flanked by two eagle heads, crowned. To-day only the two lions, one castle, and one of the eagle crowns remain. But to establish the authenticity of the standard of Pizarro it was necessary to find on the banner received by the municipality of Caracas the image of St. James. The council agreed to keep the flag, and it remained in the same state for 15 years until again exhibited in the civic procession of July 5, 1841, and the following year, when the ashes of the liberator were brought to Caracas it was placed at the foot of the mausoleum which contained them. The council resolved to place the banner in a case under glass, to preserve it from souvenir hunters, foreign and Venezuelan, who all wanted to carry away fragments of it. When the standard was prepared to be encased in the center of the posterior arabesque, under the "tatters" of which the marshal spoke, there appeared, in painting and relief, the image of the saintly protector of Spain. This is the same face which is now in the other case, beside the first in the municipal chamber. It represents, in the same proportions as the arms of Charles V, a "warrior mounted on a handsome white horse, running at a galop, and covered with rich trappings and mail. The knight wears on his head a helmet crowned with plumes, his mantle floats free to the wind, a red cross, that of St. James, shows on the coat of mail which covers his breast, and he bears in his right hand a sword, and on the field are seen shrubs, tropical plants, helmets, and implements of war." It is the same knight who appeared in the midst of the hectacombs of the Aztecs and Spaniards; the same who appeared, white and shining, in the valleys of Popayan and Cali, when Francisco César was overwhelmed by a formidable Indian army; and the same Viracocha which struck fear into the hosts of Manco Inca during the siege and taking of Cuzco.

To-day experts no longer discuss the authenticity of the standard in the halls of the council chamber of Caracas; but what was not widely known until recently was that a minute account was written about the standard in 1578, under the title "Royal Standard of Potosí," by a chronicler from Potosí named don Bartolomé Martínez Vela; and according to what don Eduardo Posada says in his recent book "Notes on Colombian History" it appears from this ancient chronicle, 400 years old, that the banner to-day preserved by the municipality of Caracas "was at the Taking of Granada, on the 6th of January, 1492, and was then brought by Columbus to America on his first voyage; that it afterward was present at the conquest of Mexico, and from there went to Honduras until it reached the city of Nombre de Dios, where Pizarro took it for the conquest of Peru."

All praise to the prudence and honor of the notable academician from Colombia.

STANDARDIZING AND GRADING GRAIN IN THE UNITED STATES¹

IT has been the good fortune of the United States of America, in the consummation of certain of its legislation, to have somewhat accidentally enacted measures which later proved to possess a basic and fundamental value to the whole of the world, the while attempting to correct an apparent surface evil. Such a beneficence has its grain standards act become.

But two countries (Canada and the United States) have put into effect laws of this unique character, precedential in the grain history of the world. In all of the records of the past, both sacred and profane, grain has played its not unromantic and its very vital part. Recall Joseph of the coat of many colors, who broke the first authentic corner in wheat to heap coals of fire on the heads of his erstwhile jealous and vengeful brethren, and Ruth who garnered in the wheat fields of the wealthy Boaz. Nearly all of the successes and disasters, the rejoicings, and the famines of ancient days were, as they are to-day, closely allied with the yields of the fields. Egypt was for centuries the world's chief producer of grain; Paul's precious cargoes in the *Castor and Pollux* are said to have been wheat, and in Great Britain lands and honors still accrue to the descendants of those who were rewarded after the Roman conquest for the raising and distributing of grain to the people. But not once in all of this, both of legend and of fact, is there a suggestion of a law for the maintenance of a certain standard of quality.

Almost everything epochal is ascribed to world progression. Yet the standardization of this commodity was not recognized in the beginning as an evidence of progression. Rather was it forced upon the United States, as a means of protection for interstate and foreign commerce customers, to insure one uniform standard of quality and condition of grain against the undue thrift and ingenuity of its large terminal market grain dealers. Perhaps in those far-off days, when wheat and corn were in themselves measures of value, their possessors saw to their purity without intervention of law. With the coming of the days when the quantity rather than the quality was the measure of value to the trade, the question became too vital a one to leave to human inclination.

¹ By Muriel Bailey.



Courtesy of the Bureau of Markets, United States Department of Agriculture.

HARVESTING WHEAT WITH THE 12-HORSE THRASHER.

This remarkable invention cuts, binds, thrashes, and sacks the wheat as it passes through the fields, making easier the semiannual task of harvesting one-fourth of the world's production of this commodity.



Courtesy of the Bureau of Markets, United States Department of Agriculture.

THRASHING, CLEANING, AND SACKING WHEAT.

Where wheat is harvested in bulk the device adopted by the Department of Agriculture for removing chaff, smut, dust, and other foreign material has been found of great practical value, aiding the farmer by raising the grade of his wheat and preventing deterioration in transit.

It was in 1906 that the United States Congress first authorized the Secretary of the Department of Agriculture to collect facts and data relative to the handling of grain which would enable him finally to fix and establish grades of a uniform character. This action was brought about by the constant demands from foreign representatives and numerous complaints from our own countrymen in regard to the great lack of uniformity in grain-grading rules. Of course every grain-producing State or Territory had its grades, but although they were similarly named and in many instances described in the same phraseology, the grain supposed to have been graded according to them in one market often bore no resemblance whatever to that same grade at another. The National Grain Dealers' Association of America, one of the most powerful affiliations in this country, composed of grain dealers in markets and at country points, assumed at one time the difficult task of compiling grain grades. These were pronounced satisfactory at the different markets by the dealers and inspection departments, and they promised to abide by them. Some of them did for awhile, but, influenced by local conditions and market interests, they gradually went back to the old ways, and the last state was worse than the first.

So that it became evident to those who had the best interests of the industry at heart that Federal supervision was the only possible remedy. There were in existence at that time about 200 sets of grades for oats, 80 for wheat, 60 for corn, and 30 for rye. Even if the number of grades had not presented a wide area in which the limit of error of human judgment might expand, adding to these such terms as "reasonably clean" and "reasonably sound," made it practically limitless. All sorts of unexpected practices crept into the most profitable business of selling grain at terminal markets. Wheat was purchased from the farmer at one grade, mixed with other conditioned wheat at elevators, and shipped out and sold by another set of standards, and the set of standards by which it was sold generally depended upon the market to which it was to be shipped.

During the endeavors of Congress to promulgate a satisfactory and equitable act, it was testified at hearings that it was common practice for some of the large elevator men to load from 100 to 200 bushels of chicken feed, dirt, screenings, etc., on the bottoms of the cars going to public elevators where grain was stored to be delivered on future contracts. A specific instance of one trader controlling several elevators was given. He had accumulated about 30,000 bushels of chicken feed, screenings, and off-grade stuff which he attempted to mix with No. 2 wheat for shipment to a foreign port. The inspector at that seaboard point declined to issue a certificate of grade, and the grain man was compelled to move it all to another port of embarkation where he finally got it away overseas under a grade certificate for No. 2 wheat.



Courtesy of the Bureau of Markets, United States Department of Agriculture.

FEDERAL GRAIN SAMPLER AT WORK.

Sampling a carload of corn by means of the double-compartment grain trier. Not less than five probes in different parts of the car are taken and emptied upon a canvas. Probes are also secured separately for the moisture test and placed immediately in air-tight cans.

These serve only as samples of what might be and was done under the prevailing elastic conditions. There was nothing whatever to prevent such dealings, saving the consciences of the inspectors. And, furthermore, aside from any desire for deceit, or any inclination to maintain the reputation of a high-grade market, there was a lack of any standardized equipment which would enable inspectors to settle any disputes or appealed cases, or to prove themselves in the right. The man who held the power was the one to settle any such question, and the man who paid the bill was generally the only one who approximated the true grade of the grain. The only tangible factor by which any grade could be distinguished from any other at inspection points by physical measurement was the test weight per bushel. Even for this there was no standard operation prescribed or required to secure uniformity in results; and the same grain could differ in weight very appreciably at different markets, owing to the methods used in filling the test kettle.

The conditions were such that there was absolutely no way to safeguard either the producer or the consumer. In a country producing easily one-fourth of the world's grain the situation was a serious one. The five years' average annual production of grain for the United States from 1913 to 1917 has been estimated to have been—for wheat, 790,634,000 bushels; for corn, 2,749,349,000 bushels, and for oats, 1,331,000,000 bushels. The exports to foreign countries during the year 1917 were: Wheat, 106,202,000 bushels; corn, 98,689,000 bushels; oats, 48,287,000 bushels.

The value of the 1918 crops, possible of fairly accurate estimation on account of the fixed price for wheat, approximated \$1,874,623,000.

An industry so vast is easy of manipulation, difficult of governmental supervision. And in these United States, when it comes to a question of parental policy on the part of the Federal Government, the question of State's rights, so very jealously guarded by each sovereign community, creates complications. After 10 years of investigation and deliberation the grain standards act was passed August 11, 1916. The avowed purpose of this act was to establish grades for grain based upon uniform standards, and so provide a basis whereby the parties to transactions involving the sale and purchase of grain in interstate and foreign commerce may arrive at a standard grade for the grain. The act authorizes the Secretary of Agriculture to investigate the handling and transportation of grain and to establish standards of quality and condition for corn, wheat, rye, oats, barley, flaxseed, and other grains. It also provides that, when standards have been established for any grain, no person shall thereafter ship or deliver for shipment in interstate or foreign commerce any grain which has been sold, offered, or consigned for sale by grade, unless such grain has been inspected and graded by an inspector licensed under the act. It is provided, however, that any person



Courtesy of the Bureau of Markets, United States Department of Agriculture.

TERMINAL MARKET GRAIN YARDS.

Cars loaded with grain are shifted into "grain yards" at most of the large terminal markets by the railroads for the purpose of facilitating their location and inspection by the authorities.



Courtesy of the Bureau of Markets, United States Department of Agriculture.

FEDERAL GRAIN SUPERVISION OFFICE AT SEATTLE.

This is one of the 35 Federal offices where grain supervisors and grain samplers make tests of standardized grains. These offices fixed the grades on appeals for millions of bushels of wheat during the war for the United States Grain Corporation.

may sell or ship such grain by sample, or under any name or description or designation which is not misleading; and it is further provided that grain may be sold or shipped in interstate or foreign commerce without inspection at point of shipment or en route, subject to inspection at destination, also without inspection from and to noninspection points.

No standard for any grain shall go into effect under 90 days' notice. Provision is made for appeals to the Secretary of Agriculture for the purpose of settling the question of disputed grades, and the Secretary is authorized to cause investigations to be made and tests applied in order to determine the true grade. In this case it is the Government that actually grades the grain and this grading supercedes all private business inspections. For, while the act authorizes the Secretary to issue licenses to competent persons, and to also issue licenses in any State which may have an inspection department to the persons authorized and employed to inspect and grade grain under the laws of such States, these inspectors are not Federal employees.

It is provided that infractions of the law shall be investigated and punished, and that inspectors may also be punished for not living up to its requirements.

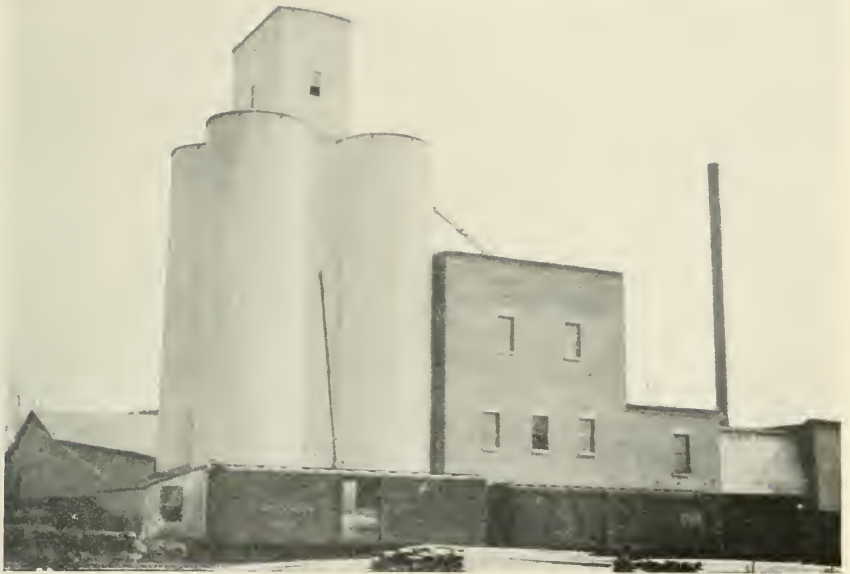
The motive power of the act is vested in two agencies—the service of grain standardization and the grain supervision service.

The grain standardization service has its headquarters at Washington, D. C., with field offices located not only at terminal markets, but in grain-producing districts and at the seaports. Its work is in the main, investigational, and it promulgates the standards for the different grains. The first grades were established for corn and were put in effect December 1, 1916. These grades were made numerous enough to cover all of the kinds of commercial corn produced and any reasonable demand for which corn may be utilized. They are as follows:

Standards for shelled corn.

Grade No.	Minimum test weight per bushel.	Moisture.	Foreign material and cracked corn.	Damaged kernels.	
				Total.	Heat damaged.
				Per cent.	Per cent.
1.....	55	14.0	2	2	0.0
2.....	53	15.5	3	4	.1
3.....	51	17.5	4	6	.3
4.....	49	19.5	5	8	.5
5.....	47	21.5	6	10	1.0
6.....	44	23.0	7	15	3.0
Sample. ¹					

¹ Sample grade, shall be white corn, or yellow corn, or mixed corn, respectively, which does not come within the requirements of any of the grades from Nos. 1 to 6, inclusive, or which has any commercially objectionable foreign odor, or is heating, hot, infested with live weevils or other insects injurious to stored grain, or is otherwise distinctly of low quality.



Courtesy of the Bureau of Markets, United States Department of Agriculture.

A MODERN, CONCRETE COUNTRY ELEVATOR.

This is the latest type of grain elevator, many of which are being built in the grain-producing sections of the United States, so that purchases of grain from the fields can be more safely stored and shipped to terminal markets.



Courtesy of Mr. Laurel Duval, Federal grain division supervisor, New York City.

IN THE HOLD OF THE GRAIN BARGE.

This illustrates the method of shoveling grain to the elevator leg in hold of barge by use of steam shovels.

The corn in grades Nos. 1 to 5, inclusive, shall be cool and sweet.

The corn in grade No. 6 shall be cool, but may be musty or sour.

So far the corn grades have worked satisfactorily, in spite of the fact that the 1918 crop was a most unsatisfactory one.

Establishing standards for wheat was a more complicated task, owing to the wide latitude of the wheat-producing sections in the country, the different climatic conditions, and the consequently differing characters of the wheat, and the problems of raising and marketing. The first grades were established for winter wheat, July 1, 1917, and those for spring wheat, August 1, 1917. Because of abnormal marketing conditions due to the war and fixed prices, these did not prove altogether satisfactory, and the revised wheat standards went into effect July 1, 1918. These standards are as follows:

Standards for wheat.

[Minimum limits.]

Grade No.	Test weight per bushel.			Moisture.		Damaged kernels.		Foreign material other than dockage.		Wheat of other classes (total).
	Class Hard Red Spring.	Classes Durum Hard Red Winter, Common White, and White Club, and subclass Red Winter.	Sub-class Red Walla.	Classes Hard Red Spring and Durum.	Classes Hard Red Winter, Soft Red Winter, Common White, and White Club.	Total.	Heat damage.	Total.	Other matter than cereal grains.	
	Pounds.	Pounds.	Pounds.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
1.....	58	60	58	14.0	13.5	2	0.1	1	0.5	5
2.....	57	58	56	14.5	14.0	4	.2	2	1.0	10
3.....	55	56	54	15.0	14.5	7	.5	3	2.0	10
4.....	53	54	52	16.0	15.5	10	1.0	5	3.0	10
5.....	50	51	49	16.0	15.5	15	3.0	7	5.0	10
Sample. ¹										

¹ Sample grade shall be wheat of the appropriate subclass which does not come within the requirements of any of the grades from No. 1 to No. 5, inclusive, or which has any commercially objectionable foreign odor of smut, garlic, or wild onions, or is very sour, or is heating, hot, or infested with live weevils or other insects injurious to stored grain, or is otherwise of a distinctly low quality, or contains small inseparable stones or cinders.

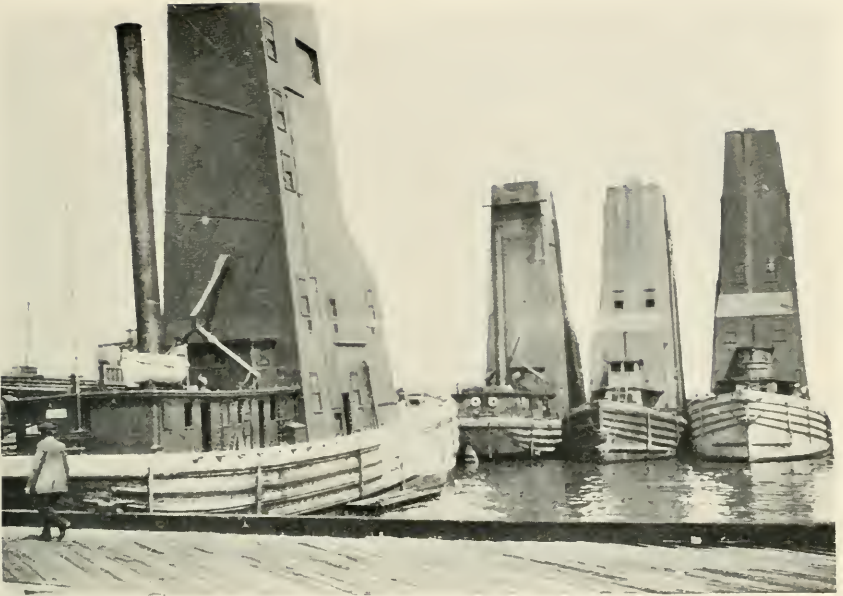
(1) The wheat in grade No. 1 shall be bright.

(2) The wheat in grades Nos. 1 to 4, inclusive, shall be cool and sweet.

(3) The wheat in grade No. 5 shall be cool, but may be musty or slightly sour.

(4) The wheat in grade No. 1 Dark Northern Spring, and grade No. 1 Northern Spring may contain not more than 5 per cent of the hard red spring wheat variety Humpback.

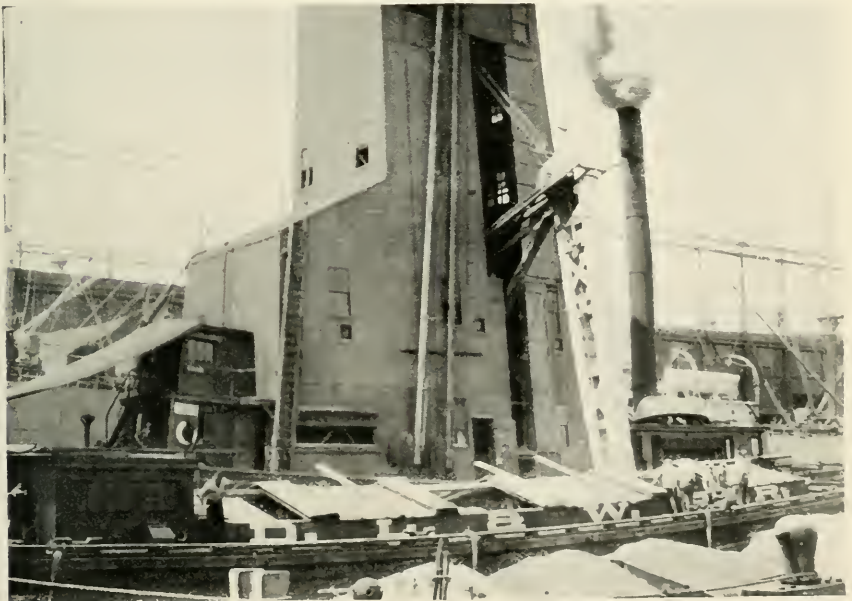
(5) The wheat in grade No. 1 Amber Durum and grade No. 1 Durum may contain not more than 5 per cent of the durum wheat variety Red Durum.



Courtesy of Mr. Laurel Duval, Federal grain division supervisor, New York City.

FLOATING ELEVATORS IN NEW YORK HARBOR.

Four of the 15 floating elevators of the International Elevator Co. of New York City. A large percentage of the grain exported from that port is loaded aboard ocean going vessels by means of this equipment.



Courtesy of Mr. Laurel Duval, Federal grain division supervisor, New York City.

ELEVATOR LEG LIFTING GRAIN.

A near view of the elevator leg in barge for lifting grain into "floater," where it is weighed, cleaned, and transferred to the hold of the ship.

(6) For each of the subclasses of the class Durum, grade No. 1 and grade No. 2, may contain not more than 2 per cent and 5 per cent, respectively, of soft red winter, common white, and white club wheat, either singly or in any combination.

(7) For each of the subclasses of the classes Hard Red Spring and Hard Red Winter, grade No. 1 and grade No. 2 may contain not more than 2 per cent and 5 per cent, respectively, of common white, white club, and durum wheat, either singly or in any combination.

(8) For each of the subclasses of the classes Soft Red Winter, Common White, and White Club, grade No. 1 and grade No. 2, may not contain more than 2 per cent and 3 per cent, respectively, of Durum wheat.

The standards for oats went into effect June 16, 1919, and were eagerly awaited by the majority of the trade. So far as can be observed, they have been a decided help. As now established they are:

Grade requirements for white, red, gray, black, mixed, bleached, and clipped oats.

Grade.	Condition and general appearance.	Minimum test weight per bushel.	Sound cultivated oats not less than—	Heat-damaged oats or other grains.	Foreign material.	Wild oats.	Other colors, cultivated and wild oats.
¹ 1	Shall be cool and sweet and of good color.....	Pounds. 32	Per cent. 98	Per cent. 2 0.1	Per cent. 2 2	Per cent. 2 2	Per cent. 2 3 2
2	Shall be cool and sweet, and may be slightly stained.....	29	95	2 3	2 2	2 3	2 4 5
3	Shall be cool and sweet and may be stained or slightly weathered.	26	90	2 1.0	2 3	2 5	2 10
4	Shall be cool, and may be musty, weathered, or badly stained....	23	80	2 6.0	2 5	2 10	2 10

¹ In the case of white oats, No. 1 shall be cool and sweet and of good white or creamy white color.

² Not to exceed.

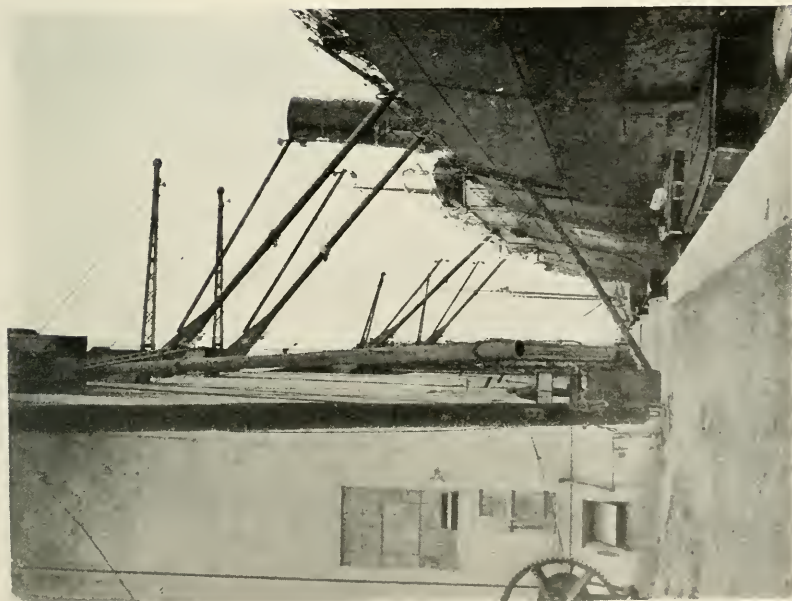
³ Four per cent of other colors allowed in No. 1 red, gray, or black oats. This column does not apply to mixed oats.

⁴ Ten per cent of other colors allowed in No. 2 red, gray, or black oats.

Sample grade shall be white, red, gray, black, mixed, bleached, or clipped oats, respectively, which do not come within the requirements of any of the grades from No. 1 to No. 4, inclusive, or which have any commercially objectionable foreign odor, or are heating, hot, sour, infested with live weevils or other insects injurious to stored grain, or are otherwise of a distinctly low quality.

The percentage of moisture in grades Nos. 1, 2, and 3 shall not exceed 14½ and in grade No. 4 shall not exceed 16.

The grain supervision service is the active agent of the act. Its mission is to stimulate and enforce compliance with its provisions. The administrative headquarters are at Washington, D. C., the field headquarters at Chicago, Ill. It has an organization busily engaged in establishing and maintaining uniformity of grading between the different markets. The board of review at field headquarters is the final court of review for disputed grades, and it reviews graded samples from all points in the United States, gives opinions on questions



Courtesy of the Bureau of Markets, United States Department of Agriculture.

LOADING AT A PORT.

Terminal elevator showing method of loading ships at a pier by means of spouts. Grain samplers are stationed at each spout in order to secure representative samples of the grain.



Courtesy of Mr. Laurel Duval, Federal grain division supervisor, New York City.

A FLOATING ELEVATOR IN OPERATION.

Grain for export is placed in barges. These are towed to the vessels. Two barges may be unloaded at one time, one on either side of the floating elevator. The elevation of the grain from the boats is accomplished by means of the legs shown extending into the barges.

regarding the interpretation of the grading factors of the standards and stands ready to solve all knotty problems which confront the district grain supervisors.

Next in line of organization are the division supervisors, who are assigned to certain divisions of the districts, where they keep in touch with district supervisors, inspectors, grain exchanges, and grain interests of all sorts, in order to bring them to a better understanding of the Federal grades and their application. The whole of the country is divided into 35 districts, each of which is under the supervision of a district supervisor. To him the licensed inspectors at the different markets render daily reports of all inspections, and he entertains all appeals and disputes.

As education in the matter of grain grading is vital to its successful acceptance, and as the farmer does not take readily to running his farm by book, Federal grain supervision has advanced further than the letter of its legal requirements, and has undertaken the interesting but somewhat extensive and problematic task of showing the grain men why and how grain should be graded, reaching the more remote districts, the farmers and millers, country buyers, and small elevator men, to whom the mere reading of the department literature, should it reach them, would have no practical appeal. The factors considered in the making of the standards were those with which grain men were generally familiar in the work of merchandising grain. They included moisture content, weight per bushel, soundness, extraneous matter or foreign material, such as obnoxious weed seeds and general mixtures of other cereals, and the odor, temperature, and appearance. The farmer, however, was not closely interested in nor familiar with these matters, depending in the great majority of instances on the judgment of the buyer and accepting as inevitable the flat price offered at the nearest market.

Grain supervision started to overcome the indifference and antipathy to the act by means of education. Exhibits of equipment and demonstrations of grading were given in connection with circuits of country fairs, agricultural colleges, grain-grading schools, and grain associations. Its supervisors have addressed all sorts of grain gatherings in whatever section of the country they were wanted or needed. This has tended to popularize and make practical, to a great extent, what was obscure and regarded as a technical and scientific experiment and a rather unpopular proceeding on the part of the Government.

Even now few individuals realize what this act has already meant and will mean to the whole of the world. Its effectiveness during this world war, when the fighting armies and Europe's starving people depended upon the wheat supply of the United States has been proven, as well as its intrinsic value. All of the grain purchased by



Courtesy of the Bureau of Markets, United States Department of Agriculture.

DEMONSTRATING PROPER WEIGHT PER BUSHEL TEST.

The correct method of leveling the wheat in the kettle is brought to the especial attention of grain men in all Federal grain supervision demonstrations. Test weight per bushel is an important factor in the grading of all grains, and the most important in the grading of wheat.

the Food Administration Grain Corporation was purchased by Federal grades. It was graded into the great elevators at the large terminal markets for storage to await transfer or shipment. When it came time to ship these huge governmental holdings, blanket appeals were called on all of them, involving the actual grading of the millions of bushels in carloads and cargoes by the supervision officials at such terminal markets as Kansas City, St. Louis, and Chicago, and such ports as Milwaukee, Buffalo, Boston, New York, and New Orleans.

In 1898 it was predicted in England that a world famine was inevitable because of the continued degeneration of the wheat supplies of the earth. The United States was not at that time raising such enormous quantities of this staple, but not then, nor at any other time, was a concerted effort made to improve the quality of the production. It is an established scientific fact that wheat will repay careful attention, but that the berry is extremely evanescent and dies out in a surprisingly short time. It has been estimated that raising the standard of wheat would treble the world's output, and that the greatest danger which the world faces is the lowering of its quality, which would definitely decrease its production.

The grain standards act has been in existence only three years. Intended primarily to check business practices of an unfair nature, it has already offered the farmer an incentive for raising better grain, placed a premium on quality, assured the purchaser of a square deal in the grade of grain of his contract, establishes confidence in foreign countries in our grain traders, and has assured a stricken world that it will be well fed.



THE CULTURE OF FRUIT TREES IN MEXICO¹ . . .

THE extensive area represented by the Mexican Republic, which, due to its latitude and altitude, possesses practically all the climates of the world, varying from the perpetual snows of its majestic volcanoes and the cold of its highest tablelands to the mild temperature of its central plains and the hot and even torrid districts of its coasts, embracing regions from the extreme north to the lands of the tropical south, offers in each zone—that is to say, cold, temperate, and hot—exceedingly favorable conditions for the cultivation of fruit trees. Incidentally it may be observed that agriculture in general, up to within the last few years, has suffered from a lack of means of communication and of centers of consumption, and has, therefore, confined its activities, particularly in the interior of the Republic, to the cultivation of products most suitable for local needs, among which maize occupies the first place, that grain being preeminently a Mexican cereal and the basis of the food of the people of the great Aztec Republic, whose daily bread consists of tortillas prepared from corn meal. Mexican white maize is certainly an excellent food, used either in the form of boiled roasting ears or in that of the dried grain, made into tamales, corn gruel, tortillas, etc. Later on the cultivation of wheat was likewise extended, increasing in this manner the use of domestic flour in the most populous and modernized centers of the country, already in easy communication with each other by means of railroads, which yearly during the last 25 years, developed their lines, bringing thereby new life into the vast cultivated plains of the high tablelands and of the Mexican coasts, the latter also stimulated by increased steamship traffic.

Industrial fruit culture and horticulture for export were the last to be developed, notwithstanding that under other forms of cultivation, limited to the needs of families and of small centers of population, from time immemorial and even before the conquest, in the remote civilizations of the ancient indigenous tribes which inhabited different regions of Mexico, and where they left ruins which clearly speak of their great advancement and progress, these cultivations were practiced. The cacti, among which the nopals (*sp. Opuntia*) predominate, whose fruits and even whose tender leaves are eaten

¹ By Dr. Mario Calvino. Translation of the original Spanish version published in the Review of Agriculture, Commerce and Labor of Habana.



THE WHITE ZAPOTA.

The pulp of this fruit when well ripened is excellent. When shredded and served with orange juice and sugar it is an appetizing delicacy.

with relish by the Mexican people, grow profusely in the extensive arid regions of the country. The pitahayas, a different species of cactaceous shrub belonging to the *Cereus* family (*cereus pitajaya*) occupies the first place among these. The *cereus trigonus*, whose magnificent fruit deserves to be better known in the horticultural world, must have constituted the basis of the prehistoric fruit culture of these arid regions, as no doubt did the *tejocote* (*Crataegus Mexicana*), the capulin (*Prunus capuli*), and the white zapote (*Casimirola edulis*) in the frigid and cold temperate zones, and the aguacate (*Persea gratissima*) in the warm temperate and torrid zones.

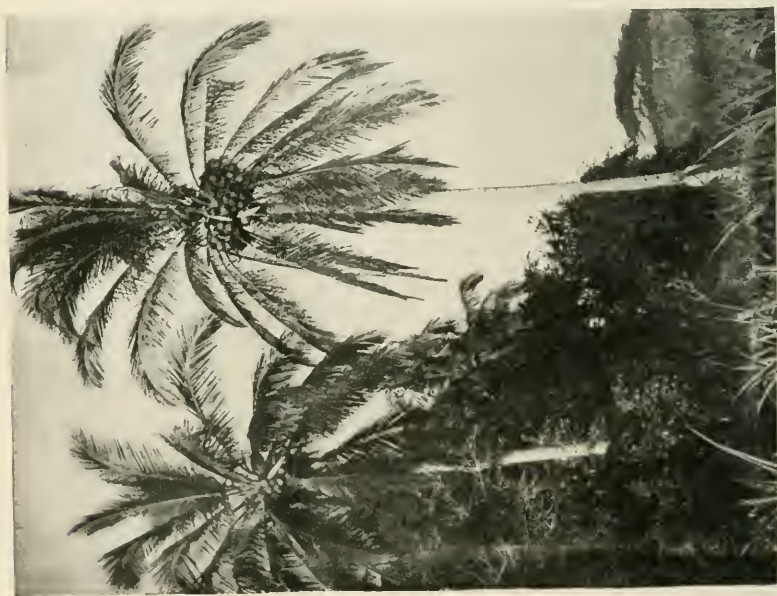
Due to these and to many other indigenous species, Mexican fruit culture offers novel and most interesting features. I propose, therefore, to make a short review of Mexican fruit-bearing shrubs and trees, so that the horticultural world may form an idea of the importance of fruit culture in the Republic.

COLD AND TEMPERATE ZONES.

The *tejocote rosacea* (*Crataegus Mexicana*), a species of hawthorn, which attains a height of about 8 meters, bears in abundance a fruit of the size of a haw, which ripens in the fall months and up to December. This fruit, when made into jellies and marmalades, forms a substance having an agreeable odor and a delicious taste. The Mexican *tejocote* is similar to the thorny *albar* (*C. oxyantha*) of Europe, which is considered on dry lands as the original stock or graft of the pear tree, but which is superior to the latter because of its larger growth and resistance to drouth. Furthermore the pear tree, grafted above ground on this stock, resists to a greater degree the American pear blight, the peculiar disease of the New World caused by the *bacillus amilyvorus*. From this point of view, that is to say considering it as the original stock of the pear and of the apple tree, the Mexican *tejocote* deserves the attention of fruit culturists the world over.

The *capulin* (*Cerasus capuli*, D. C.; *Prunus capuli*, Ser.), a tree whose trunk and branches resemble the cherry tree, but with narrower leaves, similar to that of the willow, attains a height of 8 meters. Its fruit grows in clusters like cherries, and some varieties are as good as cherries.

The *capulin* stock grafted with cherry increases the vigor of the graft during the first years, but there soon forms a large exostosis or knot at the point grafted and the tree dies. Probably the peach tree would do better grafted on this stock, and, in the latter case, the *capulin* would be of great service because of its resistance to crown gall (*bacillus tumefaciens*). As yet, however, I have been unable to make complete experiments along these lines.



Photograph to the left: Mexican coconut palm. This fruit is cultivated in the tropical climates of Mexico. Photograph on the right: The papaya tree (*carica papaya*) produces abundant and delicious fruit containing a medicinal substance known as papain.



FRUIT TREES OF MEXICO.

Walnuts and pecans.—The indigenous walnut trees in the northern part of the Republic are represented by the *Juglans rupestris* and the *Juglans nigra*, while the pecan trees are of the varieties *Caria olivaeformis*, and *C. mexicana*. Pecan trees, with their varieties brought from the United States, are of great worth and promise throughout the entire world. In Mexico there are fine varieties, not yet studied which grow in the deep, fertile soil of the canyons, are subject to irrigation, and which yield abundant crops. Irrigation is indispensable in obtaining large crops of pecans.

The *aguacate* tree (*Persea gratissima*) is the queen of the laurels. In temperate climates it grows to the height of 12 meters. It is a tropical tree which was in remote times acclimated in the cold tablelands of Mexico, and is now also cultivated in the orange belt of California. But in Mexico it resists the elements and bears fruit where the orange tree would be badly damaged by cold. The mesocarp of the ripened fruit of the *aguacate* is composed of a fragrant and highly palatable pulp. The fruit is excellent, in every way, and as the tree has a wide area of acclimatization and there are many varieties of the same, it is much to be desired that its cultivation extend over the entire area where the orange thrives. Planting the seeds of the acclimatized plants in the cold regions of the tablelands of Mexico and grafting the plants upon each other will make it easier to obtain vigorous trees similar to those grown in the Mediterranean basin.

White sapota (*Casimiroa edulis*) is not a sapodilla, as its Mexican name would indicate, but is akin to the citrus. It is a tree of medium size, with digitate leaves, and attains a height of 10 meters. The fruit, when ripe, is yellowish green and is very sweet. It is also cultivated in California, where it grows to perfection.

Another *Casimiroa*, under the name of *C. tetrameria*, is grown in Yucatan and produces a fruit eaten by the natives. This plant is entirely tropical.

HOT ZONE.

The dark sapota (*Diospyros ebenaster*) is also not a sapodilla, but is a plant of the same botanic order as the sapodilla, although of a different family. It is an *ebenácea* of the same family and of the same botanic genus as the *Kaki* of Japan. The dark Mexican zapota could be called green *kaki* by reason of the color of the epicarp, and also black *kaki* because of the color of the pulp or mesocarp of the fruit. This plant thrives in temperate and hot climates, and the pulp, when well ripened, is an excellent food. It is eaten by cutting it into pieces, and adding sugar and orange juice, which make it a delicacy of exquisite taste. This Mexican fruit deserves to be better known and more generally cultivated throughout the world. There are large and small varieties of the fruit having but few seeds.



MEXICAN FRUITS.

Upper drawing: The pitahaya (saguaro) is the fruit of one of the cacti that cover the arid regions of Mexico.
 Lower drawing: Tejocote mexicano. The fruit is gathered in the autumn and is eaten cooked. It makes very fragrant and delicious jellies and marmalades.

The mammee tree (*Lucuma mamosa*) is a large tropical sapodilla, attaining a height of about 30 meters, and which bears a large, pulpy, fragrant fruit. There are other species of the *Lucuma*, the most important among which, because of their fruits, are the *Lucuma salicifolia*, known under the name of yellow sapota, and *Lucuma capiri*, also called *Tempixque*, and some other species.

The *canistel* of Yucatan is the same as the *Lucuma nervosa* A. D. C. Trees of the genus *Bumelia*, of which the *Tilapo* (*B. lactevirens*) is of horticultural interest, are of the same tribe as the lucumas.

The *chicozapote* (*Achras zapota*), a large tree which flourishes on the Mexican coasts, where it forms entire forests and from which chicle or chewing gum is extracted, also belongs to the sapodillas.

The mammee tree of Santo Domingo (*Mammea americana*) is cultivated in the southern part of the United States, where its fruit develops to a large size.

The *caimito* (*Chrysophyllum cainito*) is a tree belonging to the sapodilla family. It is cultivated in southern Mexico, particularly in the States of Tabasco, Campeche, and Yucatan.

The *Icaco* (*Chrysobalanus icaco*) tree belongs to the rose family, is of medium size, and bears fruit resembling cherries, greatly prized in the hot climates of Mexico.

The *Nanche* (*Byrsonima crassifolia*) is a malpighiaceous shrub which grows in the hot zones of southern Mexico, and whose fragrant fruit, of the size of a cherry, is greatly relished.

The guava tree (*Psidium guaiava*, L.) is an indigenous myrtaceous tree which attains a height of about 5 meters and produces a fragrant fruit of from 4 to 5 centimeters in diameter.

The *cocuito de aceite* (*Attalea cohune*, Mort.), or little coconut oil tree, is a magnificent palm indigenous to the western coast of Mexico, where it forms wonderful forests of palms, and produces great bunches of nuts of from 4 to 5 centimeters in diameter. These nuts have an edible kernel very rich in oil.

The *coyol* (*Cocos guacoyule*, Lieb.) is another palm common to the Atlantic coast, and which produces a delicious fruit.

The *Papayo* (*Carica papaya*) is a tree well known for its fruit and the papain extracted therefrom. There are also other species of *carica*—namely, the *C. heptaphylla* and the *C. nana*—both well known under the name of “bonete”. In Yucatan, however, the *Jacaratia mexicana* is called “bonete” or “kunché.”

The pineapple family is represented in Mexico by some 10 species, among the most important of which are the cherimoyer tree (*Anona chirimolia*, Mill.) the *guanábano* (*Anona muricata*, L.), and the *Ylama* (*Anona excelsa*). The cherimoyer is cultivated in the temperate zones of the Mexican plains. The *saramuyo*, called in Cuba *anon* (*A. squamosa*), or custard apple tree, is cultivated in the hot regions.



THE CULTIVATION OF FRUIT TREES IN MEXICO.

Upper photograph: Various samples of aguacates, grown in the Central Plateau of Mexico. Lower photograph: Vineyard of San Lorenzo, in the town of Parras, State of Coahuila.

The cashew family.—In addition to the *marañon* (*Anacardium occidentale*, L.), which grows wild in the State of Campeche, there are many other species of *spondias* (*Sp. purpurea*; *Sp. lutea*; *Sp. Mexicana*), known in Mexico by the name of *ciñuela*, or plum trees, that are cultivated for their fruits, which are much relished in the hot country.

Cacao.—There are in Mexico four species of cacao—namely, *Theobroma cacao*, L.; *Th. angustifolia*, D. C.; *Th. ovalifolia*, D. C.; and *Th. bicolor*, Humb. and Bompl. Cacao is cultivated commercially in the States of Tabasco, Chiapas, and Campeche, although for reasons not well understood its culture is at present on the decline, which condition is attributed generally to the lack of pruning and antiscryptogamic treatment.

Th. bicolor, also called *pataste*, is a large tree that produces fruit like that of the ordinary cacao, but which has kernels that are very fragrant and which are used in the manufacture of candies. This species deserves the attention of fruit culturists of the tropics.

The banana (*Musa paradisiaca*) represents the exotic fruit tree most extensively cultivated on the Mexican coasts, and constitutes an inexhaustible fountain of wealth in all the hot lands of tropical America, inasmuch as its exquisite fruit is transported to the United States and to Europe. The fruit of the Roatán variety of Tabasco is preferred for export. There are large plantations of this variety in that State, the output of which in 1912 required the services of four steamship companies in transporting the bananas to the markets. The red banana is consumed locally and is very good. The cultivation of the Chinese dwarf banana (*Husa Cavendishi*, Lamb.) is acquiring commercial importance in some of the temperate zones.

Among the exotic fruits that are cultivated in Mexico on a large scale are oranges, lemons, grape fruit, limes, mangos, coffee and cacao in the hot climates, and apples, pears, apricots, peaches, quinces, grapes, and olives in the cold and temperate zones.

The Mexican botanist, Gabriel V. Aleocer, says that the celebrated conqueror and historian, Bernard Diaz del Castillo, in chapter 26 of his work entitled "A True History of the Conquest of New Spain," states that he planted some orange seeds in Coatzacoalcos and that the first oranges in the New World came from these. There are now extensive orange groves near Tampico, State of Tamaulipas, at Rio Verde, State of San Luis Potosi, near Jalapa and Cordoba, State of Veracruz, as well as in the States of Morelos, Jalisco, Michoacan, Nuevo Leon, Sonora, and Sinaloa. With the object of preventing the introduction of the pest known as fruit worm, or fly (*Typeta ludens*), which particularly attacked the oranges of the State of Morelos, the United States Government prohibited a few years ago the importation of Mexican oranges. This was a hard blow to the orange industry of Mexico, which had begun to develop on a large scale.



MEXICAN FRUIT TREES.

Photograph to the left: The capulin is a tree which produces its fruit, resembling cherries, in clusters. Central picture: Small capulin tree showing the fruit. Photograph on the right: The tejequite tree, corresponding to the *oxyacantha* of Europe, is considered the first type of pear tree.

The lemon (*Citrus limonia*), which was not attacked by the worm, was exempt from the foregoing prohibition. Hence the cultivation of lemons has continued to increase in the Republic. The indigenous lemon tree produces a small but highly desirable fruit, since it is rich in acid and keeps for a long time. Nevertheless the best varieties of Florida and California lemons are now being planted.

Also the planting of the American varieties of the *pomelo* or grapefruit (*Citrus grandis*) has continued to increase in the Republic, and these fruits thrive in both the temperate and hot zones.

The sweet lime (*Citrus lumia dulcis*) has been cultivated in Mexico since colonial times, and the country now has a number of varieties which produce large and excellent fruits, worthy the attention of citrus growers throughout the world.

The mango tree (*Mangifera indica*), which was introduced from the East Indies into Mexico at the beginning of the nineteenth century by Juan Antonio Gómez, a Spaniard of Cordoba, State of Veracruz, has spread over the entire Republic and produces one of the best fruits of the hot zone. Its propagation by seed, however, only preserved the polyembryonic varieties, of which the *Manila* is the best. The Manila mango of Cordoba, State of Veracruz, is highly prized and is similar to the Philippine variety of Cuba. Nevertheless, better varieties from Florida are now being planted by nurserymen, who sell grafted plants for distribution. The fruit of the mango tree is attacked in some regions of Mexico by the fruit fly (*Trypeta ludens*) and for this reason its importation into the United States is prohibited.

The coffee tree (*Coffea Arabica*) was introduced at the same time as the mango and by the same Spanish colonist. Coffee was soon a true source of wealth in the hot Mexican lands, and adapted itself to wild and mountainous regions better than any other useful plant. At the present time coffee is cultivated in Mexico over large areas. On the low, hot lands the Bourbon or creole coffee, which is the most cultivated, is preferred. On the higher lands the Maragogipe variety thrives, but as yet is but little cultivated.

The coconut tree (*Cocos nucifera*) thrives both on the Gulf and the Pacific coasts, producing crops which exceed the best yields of Africa and Asia. There are large plantations on the Campeche, Tabasco, Quintana Roo, Guerrero, Michoacan, Tepic, Colima and Sinaloa coasts, and the area under cultivation is increasing yearly. The disease (*Bacillus coli*) which causes the rotting of the tree is unknown on the Pacific coast, but I believe exists at Feontera, State of Tabasco, on the Atlantic coast, where, during the last few years, the trees have begun to decay and dry up.

The apple and pear tree varieties are from seeds brought over by priests during the colonial epoch. The kinds most cultivated are

grafted on *tecojote* (*Crataegus Mexicana*) stocks, but on account of lack of pruning and anticriptogamic treatment, the fine fruits of years ago are not now obtained. From 1910 to 1913, inclusive, many varieties from the United States and Europe were imported under the orders of the general bureau of agriculture, but, except in rare instances, their cultivation was neglected.

Peach and apricot trees.—The peach tree (*Prunus Persica*, Sieb.) the Spanish name for which is *melocotonero*, and the apricot tree (*Prunus Armeniaca*) or in Spanish *albaricoquero*, have been cultivated since colonial times. As they were invariably reproduced from seed, the cultivated varieties have reverted almost to wild types. The general bureau of agriculture of Mexico has introduced many varieties of American and European plants, and it is to be hoped that in localities adapted to their cultivation, and especially is this true of the peach, that they will attain the development and importance that they have in the United States.

The quince tree (*Cydonia vulgaris*) has been cultivated on the high Mexican tablelands since remote times. Its fruit is largely used by confectioners.

The grape and olive were imported into Mexico by priests during the period of the Conquest, but the Spanish Government prohibited an extension of their cultivation, which had become generalized, for fear that the products of Spain in this industry might come into competition with colonial production. Only some vines and olive trees were preserved in convents and monasteries. The grape of the colonial period is an excellent black variety, called "Mission grape," and is also used in Lower California in the preparation of raisins.

Of the olive trees there are two kinds grown in Mexico—namely, *Leccino*, an Italian variety, and *Frantoio*. One of these has erect and the other hanging branches. The fruit is used as a food for the extraction of oil, the latter being accomplished by means of old mills and by the use of imperfect and ancient processes.

The general bureau of agriculture of Mexico has greatly encouraged viticulture by distributing hundreds of thousands of grafted grape vines of different varieties suitable for table use and for the making of wine, as well as a great number of runners or cuttings of American varieties, and has provided practical instructors in grape culture, so that at the present time there are more than 4,000 hectares of vineyards in the Republic. The growing of European grapes has a great future in Mexico, not only in the production of table varieties and for the manufacture of raisins, but also of varieties for the making of wine and alcohol. The output of grapes continue to increase in the Republic, the vineyards requiring irrigation from two to four times annually.

The cultivation of the olive trees for the production of olives for table use is also being encouraged. This tree thrives on the Mexican tableland to an extent that assures it a great future in Mexico, and although it does well without irrigation, it has been demonstrated that with irrigation in the dry season it grows more luxuriantly and produces a larger yield. I have experimented in grafting the olive on indigenous stocks, first using for this purpose the Mexican ash (*Fraxinus mexicana*) and succeeded in establishing growths. These grafts developed vigorously during the first three or four years, but afterwards died. It is true, however, that the genus *fraxinus*, heretofore classed as an oleaceous plant, was recently classified by the botanist Conzatti as belonging to the family of the *Fraxinaceae* which was placed in the *Talamiflorae*. These are plants not related to the olive. I then selected another indigenous tree called, in the State of Michoacan, *Acebuche*, and which is in no way related to the true *acebuche* (*olea europea* var. *oleaster*) indigenous to the Mediterranean coasts. The Michoacan *acebuche* is an oleaceous plant of the genus *forestiera*, a new species not yet well identified. The *acebuche* of Michoacan is a small but very productive tree and is well adapted to European olive grafting, inasmuch as it dwarfs the olive, like the graft of a pear on a quince, hastens fruitage, which becomes abundant, according to the statement of José L. Melo, who informed me that plants grafted by him some years ago are well preserved and vigorous.

The date (*Phoenix dactylifera*, L.) is grown industrially in Lower California, and gives promise of great development over the entire Pacific coast of the Republic, especially if the fine varieties introduced from Arabia by Americans in Arizona and Upper California are utilized.

I have deemed it desirable to publish this article, which I wrote in 1913, revising and correcting it, with the object of dedicating it to the great Aztec Republic, where I lived eight years and of which I shall always retain the happiest recollections.



SAFETY FIRST IN MINING

THE new laboratories of the Bureau of Mines of the United States Department of the Interior at Pittsburgh, costing more than \$1,000,000, were dedicated on September 29, 30, and October 1, with appropriate ceremonies, in which the mining and metallurgical industries of the country took part. The program for the three days was arranged by the Bureau of Mines in cooperation with the Pittsburgh Chamber of Commerce.

One of the biggest features of these ceremonies was the nationwide first-aid and mine-rescue contest held during the last two days. Fully 100 teams from the coal and metal mining companies throughout the country entered the lists. October 1 was a holiday for the miners of the Pittsburgh district, and thousands attended the national meet and witnessed the awarding of the prizes.

In addition to the usual prizes for these contests, the Joseph A. Holmes Safety Association, an organization created in 1916 in honor of the memory of the first director, for the purpose of giving recognition to persons who had performed meritorious and heroic deeds in the saving of human life in the mining and metallurgical industry, or who had developed some safety appliance to further the saving of life in those industries, made its first awards. A list of recipients of diplomas and medals was announced and the deeds for which they were awarded recited. The committee on awards had recommended that 12 gold medals be awarded, all for heroic deeds performed by miners in coal and metal mines in efforts to save the lives of other fellow workmen. In several instances where men lost their lives in endeavoring to save others, the medals were awarded to their nearest living relative. This organization is intended to serve the mining industry in the same manner that the Carnegie Hero Commission attempts to serve industry generally.

Speaking of the accident conditions generally in the mining industries and of the outlook, Dr. Van. H. Manning, Director of the Bureau of Mines, says:

I am often asked, "What has the Bureau of Mines accomplished in the saving of human life in the mines?"

It is difficult to say that so many miners might not have been killed if it were not for the Bureau of Mines, because there are so many varying factors involved. I may say, however, that if you consider the prevailing average death rate in the mines for a period of years before the Federal Government took up this work, and compare it with the average fatality rate since the bureau was created, you will find that 5,000 fewer miners have been killed. In other words, had the old fatality rate been maintained through the last few years, 5,000 more men would have lost their lives.

I am of the opinion that the statement of 5,000 lives saved is a conservative one, for it must be remembered that the situation was gradually becoming worse in the



Courtesy of the Bureau of Mines, United States Department of the Interior.

THE MILLION-DOLLAR LABORATORY OF THE BUREAU OF MINES.

This building has just been completed and dedicated at Pittsburgh, Pa., by the United States Department of the Interior. Here will be carried on further experiments and research into methods for safe-guarding lives of miners in coal and metal mining.



Courtesy of the Bureau of Mines, United States Department of the Interior.

THE RESCUE CORPS ENTERING THE MINE.

Mining is always hazardous, but the efficiency and promptness of action in rescue work has decreased fatalities almost 50 per cent. A gas explosion has just taken place in the mine

mines, and who knows but what there might not have been 7,000 or 8,000 lives lost. We also have to take into consideration that, thanks to the many improvements in life-saving methods and the greater understandings of the causes of accidents, the tide has definitely turned, and this saving of 5,000 human lives within a few years will be increased as the years roll on until we can show several times 5,000 human beings saved.

Whatever statisticians attempt to make out of these figures, however they may endeavor to twist them, it is indeed a glorious record of human progress. Five thousand lives saved. Perhaps 2,000 fewer widows. At least 3,000 children who still have fathers.

Take away all of the other manifold duties of the Bureau of Mines and this one accomplishment is worthy of all its cost to the Government since its establishment and for years to come. And when I referred to this as an accomplishment, I did not mean that the Bureau of Mines deserves all of the credit. It was, however, the agency that picked up the isolated, sporadic efforts of a few well-meaning men and companies and welded them into a great national movement for greater safety to the mines. It at once gained the cooperation of the miners, the mine operators, the State mine inspectors, and others, and without these the Bureau of Mines would have been almost helpless.

It was in 1911 that the bureau held under its auspices a great, national, first-aid and mine-rescue meet at Pittsburgh, Pa., which was attended by 22,000 miners. The slogan of this meet was "Safety first," and that was the time this slogan, since internationally famous, became a national battle cry for this humanitarian movement. I understand that a steel company had used the slogan locally before that, but to all intents and purposes the Bureau of Mines was responsible for its becoming a great world slogan.

Not only was "Safety first" immediately adopted by the mining companies (you will see it posted about hundreds of mines and also on mining equipment), but it was also taken up by the railroads and industrial plants of the country, until it became a national by-word. Safety organizations appeared everywhere; committees of the men were formed in the mines and shops, and determined campaigns were inaugurated to reduce the number of deaths and injuries in the industries. In some of the big establishments the committees printed little papers for the men giving the progress of life-saving work and pointing out accidents that perhaps could have been avoided. Safety inspectors and committees were chosen; the railroads built up elaborate safety organizations, and divisions vied with each other as to which could produce the cleanest records. There was a spirited rivalry between these committees, and the records of the different establishments began to show results in lives saved and men saved from suffering. In quite a number of mills and factories and railroads there was a reduction in the fatalities of more than 50 per cent.

Just how many thousands of lives were saved may never be known, for there are no statistics that adequately cover industrial accidents, but we do know that the Bureau of Mines and its associated agencies started a movement that not only spread throughout the entire United States, but also reached the other countries of the world with equally good effect. And it all originated with the modest mine meet held in Pittsburgh in 1911.

Since that time the bureau has gone on its way, improving its methods, interesting the miner in his own safety and that of his fellow men; doing what it could to point out to the owners of the mines the dangerous places that could be avoided, and making recommendations as the result of its experiments looking toward still greater safety. To-day the bureau maintains in every mining field of the country a mine rescue car fully equipped with modern life-saving apparatus that responds to disasters and assists in the rescue work, visiting the mines in its district between emergency calls, and giving the miners training in both mine rescue and first aid to the injured. As a result



Courtesy of the Bureau of Mines, United States Department of the Interior.

THE RESCUERS RETURNING.

The rescue party is here on its way out of the mine. The full equipment, including the gas masks, is shown, as well as the method of bearing stretcher and victim.



Courtesy of the Bureau of Mines, United States Department of the Interior.

WAITING FOR NEWS OF ENTOMBED MINERS.

When word of a disaster reaches the mining village, wives, mothers, and children gather at the mouth of the mine to await news of the safety of relatives.

there are several thousand miners throughout the country who are expert in the use of the oxygen mine rescue apparatus and who are familiar with the most modern methods of life saving. Beside this, more than 50,000 miners understand first-aid-to-the-injured work, as well as the regular hospital corps. All of these men have been trained by the Bureau of Mines.

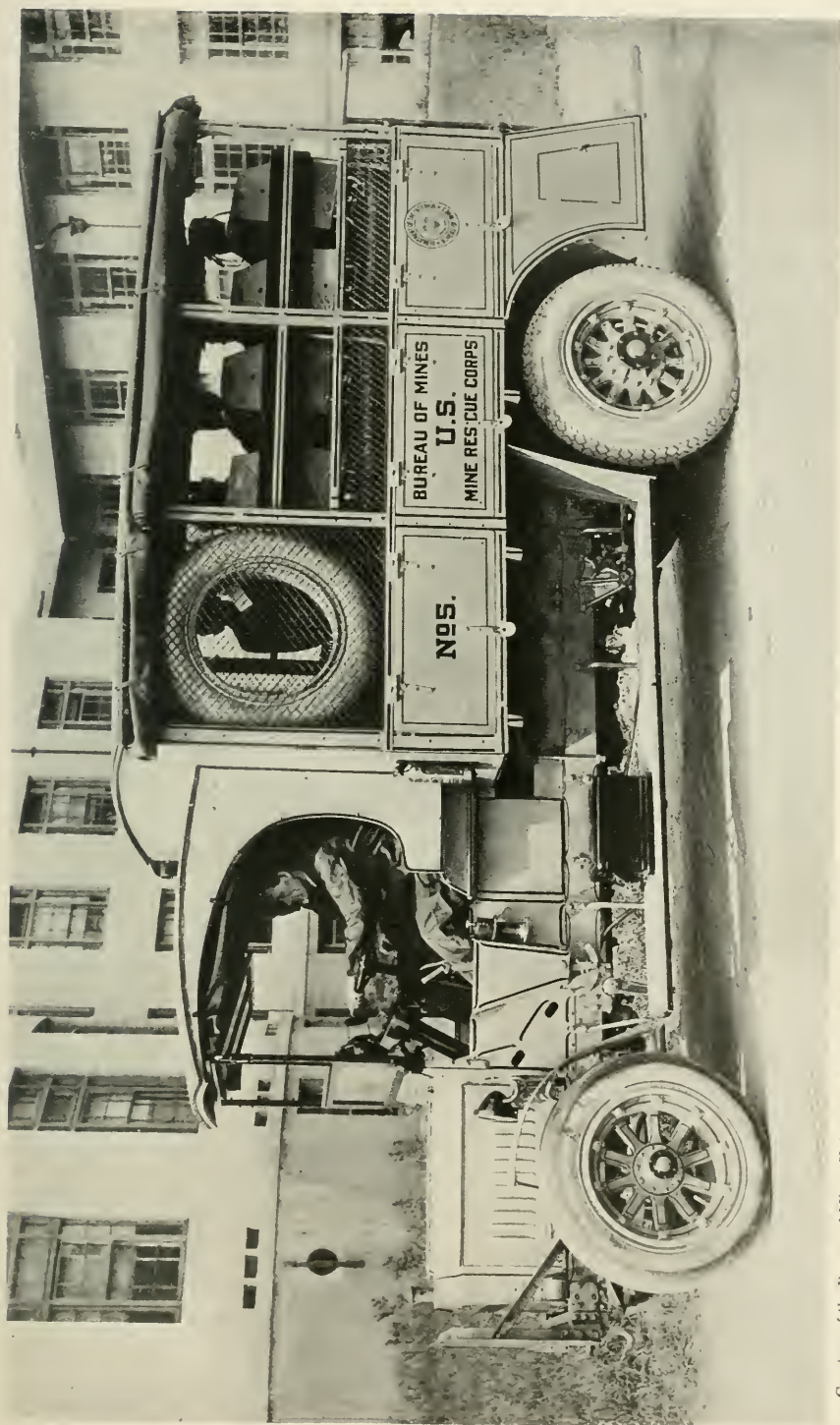
Happily, great mine disasters have been becoming fewer and fewer as the men come to a better understanding of the causes. Nevertheless, they do happen, and one thing that the bureau has preached is that, upon such a visitation, there shall be a more orderly and systematic method of rescue work, for it has been demonstrated that life can be saved in various ways. The bureau has endeavored to tell the miners that in great catastrophes it is often better for entombed miners to barricade themselves, keeping the poisonous gases out of their working place, and to wait for relief. In this manner 42 men entombed in a mine for four days were recently rescued, the men even being able to walk out of the mine.

We are hopeful that this nation-wide first-aid and mine-rescue work in Pittsburgh has given the safety movement another such impetus as the meet in 1911. If it has but a fraction of the influence on the advancement in life-saving efficiency that the former one had, the bureau will be amply repaid for initiating this movement.

As far as the mining industry is concerned, we are not content to rest on the progress made. There are now more than a million miners in the United States, and each year more than 3,000 are killed in accidents and a quarter of a million injured. Taking the cold, business calculation of the State compensation commissions and eliminating the suffering and sorrow as a result of the 3,000 killed each year, the economic loss from these fatalities alone is \$12,000,000 a year, for these commissions are paying on an average of \$4,000 for each life lost. This is a terrible toll for one industry to pay annually in providing the coal that furnishes the power of the Nation and warms the homes of the people. It is hard for us to realize that out of every mining camp of 1,000 men 3 of them are sure to lose their lives before the next year is out.

Mining will always be an extra hazardous business. There will always be dangers inherent to the industry that will ever take a death toll and beyond which it will be impossible to reduce the death rate, but we do not believe that we have reached the irreducible minimum. It is my belief that we can cut down the present fatality rates fully one-half; that we can save each year 1,500 of the 3,000 killed every 12 months. This may seem impossible of attainment, but so did the saving of 5,000 lives annually at the beginning. The causes of these fatal accidents are now much better known than before; operators and miners are giving much more thought to the dangers of the mines, and the wide-awake among them have installed more modern safety devices. The industry is not now groping in the dark in regard to the causes of accidents which were more or less mysterious some years ago, such as the dangers from coal dust. Through the experimental mine of the bureau, mining men and miners both have a keener understanding of the dangers of coal dust, and they have also learned how to care for this menace that has cost so many lives.

In the mining industry, at least, a human life is much more valuable than ever before. Indeed, that can be said of all of the industries, especially in those of the United States. The recent world holocaust in which 7,000,000 men made the supreme sacrifice has decreased man power to an alarming extent. It is now necessary, as never before, to safeguard every life so that none may be wasted uselessly. The great advance in safety work already made, the millions of dollars spent in safety devices, and the humanitarian efforts of the different State compensation commissions are now of inestimable value. The day of the ambulance chaser and the ghouls that preyed upon the widows and fatherless are happily over. The State now steps in and sees that the bereaved are protected. This alone is worth all the fight we have endeavored to make. I do not say that the Bureau of Mines is responsible for these State compensations, but I do know that these commissions came after the mining



Courtesy of the Bureau of Mines, United States Department of the Interior.

THE RESCUE CORPS AUTO TRUCK.

At the first intimation of a mine disaster the auto truck with its rescue corps and equipment is rushed to the scene. When not needed on active rescue duty it is sent through the mining districts instructing the miners in first aid and preventive measures.

industry started its great human-saving drive, and that the disclosures of the conditions in mining furnished the States with facts that favored the establishment of these commissions.

The dedication ceremonies brought to Pittsburgh for the three days the most prominent mining and metallurgical men of the Nation, those not alone interested in the safety-first movement by virtue of its direct appeal, but also those connected with the allied industries that use the products of the mines. The enthusiastic slogan of all was "Cut the mine fatalities in half."

PAN AMERICAN NOTES

INTERNATIONAL TRADE CONFERENCE.

THE International Trade Conference at Atlantic City is being held as this number of the BULLETIN goes to press. The conference was called by and held under the auspices of the Chamber of Commerce of the United States, a general committee of more than 100 of the leading business men of the country having the details in charge. Reports from representatives of the chamber of commerce who have been in contact with Government officials, bankers, and business men of Europe emphasize the importance of the conference. The high standing of the men composing the delegations from Great Britain, France, Italy, and Belgium, together with the universal interest manifested in the United States, show that in all of these countries leaders of industry have taken literally and intend to apply the dictum of President Wilson, "The plans of the modern world were made in the countinghouse, and the men that do the business of the world now shape the destinies of the world."

On commenting on the character of this important conference, Mr. Homer L. Ferguson, president of the Chamber of Commerce of the United States, writes:

That representatives of the five great nations associated in the war will sit down together to thrash out problems, the solution of which is essential to the removal of present international trade ills, is in itself a most encouraging sign. They will tell us their troubles and we will tell them ours; their greatest needs and how these can be met will be discussed in the friendly atmosphere created by the get-together spirit of the conference.

Of course the problems of the immediate future press most urgently for solution, but we hope that at this conference we can at least map out plans for future cooperation and the maintenance of good international trade understanding.

The Atlantic City meeting might be described as a great clinic or consultation in which the leading business surgeons of the world will diagnose its international trade ills and prescribe for their cure. Personally I feel that we have at least as much to learn from the business men of Europe as they have to learn from us. Our exceptionally fortunate position as the only nation having a surplus of anything should not

blind us to the fact that unless we are satisfied to be mere industrial misers we must find means, and if necessary make sacrifices, to enable the nations of Europe not merely to buy from us, but to sell to us.

The meeting at Atlantic City, arranged by the Chamber of Commerce of the United States, affords the first opportunity to discuss this whole problem in such a way as to bring out a consensus of views and facts and to provide a firm foundation for future action along the wisest and most constructive lines for the good of all.

AMERICA THE SAVIOR OF EUROPE.

Among the notable incidents that occurred in connection with the Fourth of July celebration in honor of the United States, which took place in Buenos Aires, was the scholarly address of Dr. Alberto B. Martinez, director of the National Census of Argentina. The BULLETIN is indebted to Dr. L. S. Rowe, Assistant Secretary of the United States Treasury Department, for the following brief summary:

The lecturer gave an interesting sketch of the development of the United States from July 4, 1776, down to the great world war, showing how the influence of the United States in world affairs had been constantly on the increase. In the course of his address Dr. Martinez referred to the fact that Mitre, the great Argentine statesman, had said that America has saved Europe three times: First, when, through the discovery of the continent, a vast source of wealth was opened to the Europeans; second, when, on obtaining its independence, the continent reestablished the political and social equilibrium of the Old World; and, third, when between the European countries and the American countries a current of ideas and of commerce was established. Dr. Martinez then added that this statement should be amplified by recognition of the fact that the United States, by its entrance into the world war, had made America once more the savior of Europe.

The lecture was received with enthusiastic approval on the part of the audience.

AN APPRECIATED GIFT.

The Pan American Union has received from Mr. Thomas Ewing of New York, a finely executed portrait engraving of Henry Clay, the first great statesman of the United States to advocate true Pan Americanism, as well as the first to champion the cause in the United States Congress of those patriots of Spanish America who fought so heroically to obtain their freedom. In presenting the engraving Mr. Ewing writes:

The picture of Henry Clay, which I am presenting to the Pan American Union, was caused to be made by representatives of certain South American Republics in honor of his activity and influence in securing their recognition by the United States. This particular copy is an heirloom. It belonged to my grandfather and my father. It is in the original frame. I trust that you will think it worthy of a place in the beautiful home of the union.

In behalf of the Pan American Union the Director General herewith takes occasion to acknowledge with gratitude the presentation of this most appropriate souvenir, which will henceforth grace the hall of the building which may be said to exemplify and stand for the high Pan American ideals that Henry Clay so nobly cherished.

THE PAN AMERICAN SOCIETY'S COURSE OF LECTURES.

The Pan American Society of the United States has planned a course of lectures on several South American countries during this fall and winter. The lectures will be illustrated with lantern slides, photographs, and in some instances by moving pictures. The first of these entertainments took place October 15, in the north ballroom of the Hotel Astor in New York, Dr. Benjamin H. Hunnicut being the lecturer and Brazil the subject. The films shown were made under the supervision of the Brazilian Government and were of unusual interest as was the lecture. Dr. Hunnicut has resided in Brazil for a number of years and has enjoyed exceptional facilities for making a thorough study of the resources of the country and of its development along industrial, agricultural, and commercial lines. According to the program outlined by Mr. John S. Prince, secretary of the society, the next lecture will be given by Mr. James Carson, on December 4, the subject being Mexico, its resources, and the characteristics of its people. This will be followed in January by an illustrated lecture on Peru by Prof. Hiram Bingham, of Yale University, recognized as perhaps the leading authority in this country on Peruvian antiquities and Incaic and pre-Incaic cultures. As the leader of several scientific expeditions to Peru and Bolivia, Prof. Bingham has had unusual opportunities to study not only the past but the present peoples of these countries, and his lectures are always very instructive. In March Dr. Peter H. Goldsmith, editor of *Inter-America*, will lecture on Chile, exhibiting a number of representative photographs and pictures of his personal collection. In his connection with the Pan American Educational Section of the Carnegie Endowment for International Peace, Dr. Goldsmith has given special attention to Latin American countries and literature. Sometime in April a lecture will be given on Argentina, the speaker selected being Dr. L. S. Rowe, who has a national reputation as an authority on South American countries generally, and who is especially well informed on the financial, commercial, and industrial conditions of Argentina.

The committee in charge of the lecture course has planned to have each lecture given under the patronage of 10 members of the society and 10 prominent members of the particular colony in New York whose country is to be the subject. Dr. John Bassett Moore will preside and it is hoped that on each occasion the ambassador of the country dealt with will be present and will make a brief address in response to the lecture. A selected orchestra will render the national airs of the countries: national songs will be sung, typical dances performed by natives in costume, and each occasion will be made an event of exceptional entertainment and instruction. The society is to be congratulated in devising a program so well calculated to arouse added interest in the people of the "other Americas."



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AMERICAN SAILORS HONORARY PALL BEARERS AT FUNERAL OF LATE CUBAN MINISTER TO GERMANY.

American sailors placing the body of Señor Gonzalo de Quesada, late minister from Cuba to Germany, aboard the flag-draped truck which carried it to the cruiser *Cuba* for reinterment in Cuba. High officials representing the Nation, State, and New York City were present at the funeral services held in New York August 19. Señor Quesada died in Berlin two months before the outbreak of the war. His remains were transported to New York on the steamer *Niwa Amstadam*, to be taken from there to his own country. He was the first Cuban minister to the United States and had many friends among the leading men of the country.

AGRICULTURE, INDUSTRY AND COMMERCE

ARGENTINA.

The following table shows the FOREIGN COMMERCE of Argentina for the calendar year 1918, as reported by the director general of statistics of Argentina, with conversion into United States gold on the basis of Argentine peso gold = 97 cents United States. The values are what are denominated by the Argentine director of statistics "real values," as distinguished from customhouse valuations, and are largely in excess of the latter.

In comparing these tables with tables for prior years one must be careful to see that the comparison is made with values computed on the same basis; especially is this so of imports.

In 1917 "real values" of imports were arrived at by the Argentine statistical office by adding to customhouse valuations 106.1 per cent. The custom house value of the imports for that year was, \$178,933,037, and "real values" were given as, \$368,911,543. The percentage of increase used to determine "real values" in 1918, has not yet been announced, but probably exceeded the percentage for 1917.

IMPORTS.		EXPORTS.	
[United States Gold.]			
United States.....	\$164,415,000	United Kingdom.....	\$296,626,000
United Kingdom.....	121,250,000	United States.....	160,147,000
Brazil.....	47,918,000	France.....	109,610,000
Spain.....	40,546,000	Italy.....	38,994,000
France.....	25,220,000	Brazil.....	32,301,000
Italy.....	19,400,000	Spain.....	23,086,000
Japan.....	14,744,000	Uruguay.....	14,550,000
Chile.....	8,051,000	Chile.....	8,342,000
Paraguay.....	7,081,000	Paraguay.....	5,044,000
Mexico.....	5,189,500	South Africa.....	4,753,000
Uruguay.....	4,365,000	Sweden.....	4,268,000
Peru.....	3,880,000	Norway.....	4,074,000
Sweden.....	3,201,000	Japan.....	2,716,000
Switzerland.....	3,104,000	Peru.....	291,000
Cuba.....	3,104,000	Cuba.....	291,000
South Africa.....	1,843,000	Mexico.....	48,500
Norway.....	873,000	Switzerland.....	19,400
Other countries.....	11,397,500	Other countries and "on orders".....	72,197,100
Total.....	485,582,000	Total.....	777,358,000

The following figures show Argentine EXPORTS of principal commodities by quantities and destinations for the first six months of 1919, with comparison of totals of the like exports for the corresponding period of the five preceding years. Tons are metric, of 2,204.6 pounds.

Wheat:	Tons.
Brazil.....	120,387
Sweden and Norway.....	97,017
Spain.....	95,917
Netherlands.....	75,040
France.....	57,135
Italy.....	44,408
United Kingdom.....	41,750
Belgium.....	10,246
On orders.....	270,787
Other countries.....	25,478
Total.....	838,165
Six months—	
1918.....	1,531,332
1917.....	743,535
1916.....	1,379,962
1915.....	2,278,338
1914.....	860,244

Maize:	
United Kingdom.....	165,665
United States.....	130,690
Sweden and Norway.....	105,897
Belgium.....	52,091
Spain.....	28,423
Netherlands.....	24,705
Denmark.....	24,138
Italy.....	8,280
On orders.....	273,733
Other countries.....	43,198
Total.....	856,820
Six months—	
1918.....	195,786
1917.....	616,210
1916.....	1,023,071
1915.....	1,517,298
1914.....	1,250,221

Oats:	
Sweden and Norway.....	20,570
United Kingdom.....	12,356
France.....	9,702
Belgium.....	6,237
Italy.....	3,329
Netherlands.....	2,394
On orders.....	54,706
Other countries.....	41
Total.....	109,335

Oats—Continued.	
Six months—	Tons.
1918.....	191,777
1917.....	199,614
1916.....	398,637
1915.....	477,681
1914.....	327,804

Linseed:	
United States.....	122,404
United Kingdom.....	32,150
Netherlands.....	18,705
Belgium.....	14,186
Sweden and Norway.....	10,353
Denmark.....	10,121
On orders.....	13,594
Other countries.....	907
Total.....	222,420

Six months—	
1918.....	246,550
1917.....	44,044
1916.....	397,510
1915.....	602,818
1914.....	683,575

Barley:	
United Kingdom.....	2,077
Spain.....	1,324
France.....	1,000
Belgium.....	928
Brazil.....	866
Other countries.....	200
Total.....	6,395

Six months—	
1918.....	3,753
1917.....	11,322
1916.....	22,876
1915.....	35,387
1914.....	17,773

Flour:	
Brazil.....	69,215
Sweden and Norway.....	23,683
Netherlands.....	7,956
On orders.....	34,698
Other countries.....	5,896
Total.....	141,448

Flour—Continued.

Six months—	Tons.
1918.....	52,987
1917.....	37,722
1916.....	72,787
1915.....	74,213
1914.....	43,442

Bran (6 months):

1919.....	
1918.....	530
1917.....	1,268
1916.....	4,451
1915.....	44,713
1914.....	117,052

Pollards, 6 months:

1919.....	
1918.....	133
1917.....	8,557
1916.....	7,075
1915.....	¹ 482,684
1914.....	¹ 81,826

Sugar, 6 months:

1919.....	
1918.....	
1917.....	
1916.....	53
1915.....	37,324
1914.....	

Quebracho logs:

Italy.....	2,235
Sweden and Norway.....	400
Netherlands.....	51

Total..... 2,686

6 months—

1918.....	7,646
1917.....	57,888
1916.....	57,146
1915.....	63,640
1914.....	215,316

Quebracho extract:

United Kingdom.....	13,330
United States.....	10,808
France.....	7,771
Italy.....	7,443
Sweden and Norway.....	7,038
Belgium.....	5,026
Denmark.....	3,503
Spain.....	2,138
Netherlands.....	1,452
Other countries.....	1,934

Total..... 60,443

¹ Bags.

Quebracho extract—Continued.

6 months—	Tons.
1918.....	41,224
1917.....	49,751
1916.....	72,095
1915.....	50,737
1914.....	34,101

Butter:

United Kingdom.....	9,230
Sweden and Norway.....	384
Italy.....	234
France.....	218
Spain.....	140
Belgium.....	16

Total..... 10,222

6 months—

1918.....	7,597
1917.....	4,097
1916.....	4,044
1915.....	2,889
1914.....	1,504

Hay:

Brazil.....	459
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Total..... 459

6 months—

1918.....	706
1917.....	2,266
1916.....	10,682
1915.....	4,857
1914.....	11,159

Caliskins:

	Number.
United States.....	32,700
Spain.....	16,791
United Kingdom.....	2,000

Total..... 51,491

6 months—

1918.....	36,842
1917 ²	
1916 ²	
1915 ²	
1914 ²	

Dry ox hides:

Spain.....	143,474
United States.....	126,899
United Kingdom.....	56,524
Sweden and Norway.....	12,598
France.....	7,238
Italy.....	1,997
Netherlands.....	1,750
Other countries.....	650

Total..... 354,130

² Not available.

Dry ox hides—Continued.

6 months—	Number.
1918.....	615, 940
1917.....	897, 556
1916.....	822, 249
1915.....	1, 355, 197
1914.....	878, 268

Salt ox hides:

United States.....	588, 232
United Kingdom.....	406, 803
Sweden and Norway.....	227, 678
France.....	35, 660
Belgium.....	10, 000
Netherlands.....	5, 000
Total.....	1, 273, 373

6 months—

1918.....	1, 097, 087
1917.....	1, 455, 899
1916.....	1, 598, 212
1915.....	1, 395, 707
1914.....	1, 246, 028

Horse hides:

United States.....	38, 536
Total.....	38, 536

6 months—

1918.....	14, 522
1917.....	111, 005
1916.....	31, 659
1915.....	46, 628
1914.....	35, 176

Sheepskins:

	Tons.
United States.....	2, 306
France.....	1, 850
Brazil.....	50
Netherlands.....	12
Other countries.....	16

Total..... 4, 234

6 months—

1918.....	2, 059
1917.....	10, 921
1916.....	6, 649
1915.....	7, 820
1914.....	7, 604

Goatskins:

United States.....	669
France.....	70
Spain.....	41
United Kingdom.....	4
Total.....	784

Goatskins—Continued.

6 months—	Tons.
1918.....	580
1917.....	812
1916.....	2, 186
1915.....	1, 388
1914.....	586

Wool:

United States.....	2, 009
France.....	899
United Kingdom.....	583
Netherlands.....	336
Belgium.....	217
Sweden and Norway.....	208
Italy.....	199
Spain.....	163
Other countries.....	75

Total..... 4, 689

6 months—

1918.....	7, 160
1917.....	10, 822
1916.....	8, 455
1915.....	10, 559
1914.....	11, 033

Hair:

United Kingdom.....	195
Italy.....	189
United States.....	120
France.....	110
Sweden and Norway.....	80
Other countries.....	36

Total..... 730

6 months—

1918.....	364
1917.....	918
1916.....	1, 599
1915.....	1, 247
1914.....	915

Tallow:

United Kingdom.....	5, 634
Belgium.....	3, 382
France.....	3, 210
Italy.....	2, 815
Netherlands.....	2, 520
United States.....	655
Sweden and Norway.....	219
Other countries.....	594
On orders.....	653

Total..... 19, 682

Tallow—Continued.

6 months—	Tons.
1918	19, 946
1917	15, 553
1916	10, 144
1915	18, 056
1914	22, 312

Frozen beef:

	Quarters.
United Kingdom	1, 366, 597
France	876, 845
Italy	120, 333
On orders	201, 654

Total

6 months—	
1918	2, 811, 434
1917	2, 511, 406
1916	2, 045, 835
1915	1, 280, 426
1914	328, 880

Chilled beef: United Kingdom

6 months—	
1918	23, 544
1917	352, 146
1916	389, 175
1915	655, 600
1914	2, 124, 676

Frozen mutton:

	Carcasses.
United Kingdom	613, 422
France	125, 084
On orders	27, 013

Total

6 months—	
1918	454, 755
1917	665, 797
1916	784, 169
1915	481, 195
1914	866, 013

Frozen lamb:

United Kingdom	111, 749
France	4, 175
On orders	697

Total

6 months—	
1918	93, 842
1917	287, 082
1916	350, 938
1915	249, 856
1914	379, 394

The department of agriculture states that the production of PETROLEUM from Comodoro Rivadavia during the first half of July last was 8,459 cubic meters, 4,022 of which were extracted during the first week of the month mentioned. The drilling of well No. 96 was completed on July 14 last, and in two hours this shaft produced 300 tons of oil. Government reports show that the Comodoro Rivadavia petroleum fields produced 197,573 cubic meters of oil in 1918, or 9 per cent in excess of the production of 1917. The output of these deposits for the present year is estimated at 236,271 cubic meters.

A national industrial MILK ORGANIZATION was formed in Buenos Aires about the middle of July last. This organization proposes to encourage the development of the dairy industry in all its branches. It has established an office in the Suberville Building, Buenos Aires, under the direction of Vicente R. Casares, its president.

On July 16, 1919, the President of the Republic issued a decree concerning the utilization of the IGUAZU FALLS, and authorized the general navigation and port bureau to report upon the feasibility of erecting and operating a hydroelectric plant in the vicinity of the cataracts, stating the power obtainable, etc. The same decree empowers the minister of public works to report upon a plan for the

transmission of this power to Buenos Aires and other great consuming centers, and if considered expedient to request bids for the erection of the plant and the transmission of the power. The department of foreign relations will request permission from the Brazilian Government to make such investigations on the Brazilian side as may be necessary.

The San Carlos textile factory proposes to manufacture JUTE BAGS AND SISAL TWINE. The department of agriculture will cooperate with the factory in experimenting with native fibers suitable for this purpose. Plants producing textile fibers are found in abundance in the vicinity of the Parana, Bermejo, and Paraguay Rivers.

A passenger and freight line of NORWEGIAN STEAMERS has begun to ply between Norwegian and River Plate ports, touching at Rotterdam, Holland, United States, and Brazilian ports.

BOLIVIA.

During the first six months of the year THE EXPORTS FROM SPAIN FOR BOLIVIA through the port of Barcelona were as follows: Pieces of freight, 1,462; weight, 88,343 kilos; value 720,134 pesetas (peseta equals \$0.1930). Compared with exports for a like period of 1918 a decrease in trade appears, as the exports for the first six months of the past year to Bolivia were 2,413 pieces of freight weighing 157,488 kilos and with an aggregate value of 1,060,955 pesetas.

THE BOLIVIAN IMPORTS AND EXPORTS with the rest of the world for the five-year period of 1914-1918, inclusive, was as follows: 1914, bolivianos 105,562,368 (1 boliviano=approximately \$0.39); 1915, bolivianos 117,784,917; 1916, bolivianos 132,583,015; 1917, bolivianos 191,228,885; and 1918, bolivianos 217,612,737.

The general total of NATIONAL PRODUCTS EXPORTED in 1918 amounted to 120,710 metric tons, worth 182,612,850 bolivianos and taxed by the customs for 8,241,615 bolivianos, as against 151,797 metric tons, worth 157,748,054 bolivianos, and taxed by the customs for 5,866,996 bolivianos, in 1917.

BRAZIL.

During the first five months of the present year THE EXPORTATION OF COFFEE FROM BRAZIL amounted to 6,247,000 sacks, representing a value of 536,811 contos (conto paper=about \$275 U. S.), as against 3,673,000 sacks, worth 138,365 contos in like period of 1918.

THE EXPORT OF BEANS during the first five months of the year amounted to 22,629 tons worth 8,795 contos, as against 53,158 tons worth 15,328 contos for a like period in 1918.

From January to May of the present year THE EXPORTATION OF MANDIOCA FLOUR dropped from 23,355 tons to 15,877 tons. The average value per ton went down from 430 milreis (milreis paper equals \$0.275) a ton in 1918 to 342 milreis for the present year.

THE AUTOMOBILE ROAD from Santa Rita to Jotahy, via Río Negro in the State of Goyaz, has been officially opened. The road is 375 kilometers long and a trial trip was made over it in 11 hours.

THE IMPORTATION OF WHEAT FLOUR by Brazil from other countries in the last five years is as follows: 1914, amount worth 27,165 contos; 1915, 38,560 contos; 1916, 36,657 contos; 1917, 59,186 contos; 1918, 85,529 contos. The same increase was noted in wheat in the grain, as its importation rose in value as follows: 1914, 48,680; 1915, 82,139; 1916, 89,369; 1917, 60,535; 1918, 96,690 contos.

EXPORTATION TO PORTUGAL in 1918 amounted to 10,401 contos as against 6,428 in 1917. In addition to the exportation to Portugal, in 1918, merchandise to the value of 544 contos was sent in 1918 to Cape Verde as compared with 124 contos worth shipped in 1917; and products worth 139 contos were sent to Portuguese Guinea in 1918, as against 39 contos in 1917. The value of Brazilian products exported to Lorenzo Marques in 1917 amounted to 1,021 contos.

An institution known as the BELGIAN COMMERCIAL & INDUSTRIAL ASSOCIATION has been founded to encourage the Brazilian-Belgian trade and to protect the interests of Belgian business men and manufacturers settled in Brazil. An initial capital of 50,000 francs was subscribed by the Belgians in Rio de Janeiro for the founding of the society.

THE COFFEE CROP OF SÃO PAULO FOR 1918-19 has suffered greatly on account of the heavy frosts which came last June. The crop gathered in the State of São Paulo in 1917-18 was 48,804,600 arrobas, or 12,210,150 sacks, as against 39,751,580 arrobas, in 1916-17. But the crop for this year was greatly affected by the unseasonable frosts when the beans on the coffee trees were already half formed, as about 50 per cent of the coffee trees in the State were damaged. The result is the highest quotations on coffee in 20 years.

The Brazil Takushoku Kaisha contracting for the JAPANESE COLONIZATION of Iguape in the State of São Paulo at the end of the year owned 17,120 hectares. Most of this real estate is occupied by Japanese colonists, and a few natives as shown in the following figures: Japanese, 306 families, composed of 1,134 persons, and 5 Brazilian families composed of 24 persons. All the colonists are engaged in the cultivation of sugar cane, mandioca, grains, and especially rice.

During the period of the war THE INDUSTRIAL GROWTH OF THE STATE OF SÃO PAULO was exceptional. What was valued

in 1914 at 212,231 contos of industrial production in 1917 went up to 562,381 contos (conto=about \$275 U. S.). The principal increase was noted in textiles, hats, shoes, and manufactured drugs. Textiles manufactured in 1910 came to 75,833,470 meters, worth 38,747 contos, and in 1917 went up to 160,254,139 meters, worth 183,810 contos.

According to the Bureau of Industry and Commerce of the Department of Agriculture the COFFEE CROP OF BRAZIL FOR 1919-20 will be 3,368,750 sacks of São Paulo coffee, 430,000 sacks of coffee from Minas Geraes, and 20,000 sacks from Paraná, making a total of 3,818,750 sacks. The small size of the crop is due to the damage caused by the frosts of June, 1918. Of the 791,256,000 coffee trees then bearing 390,584,000 were seriously damaged. The zone of greatest destruction was the district through which the São Paulo Railroad runs, several municipalities losing from 70 to 90 per cent of their coffee trees. According to the reports from coffee centers the 1920-21 crop promises to be a good one, as the trees have recovered from the frosts.

In an article published in Estado de Para, Dr. Lodovico Schienhagen states that the EXPORTATION OF AHINGA will produce 30,000 contos a year, adding that Para is able to export 100,000 tons of ahinga fiber annually. Ahinga is the raw material from which the pulp for linen paper is made. The plant grows along the clay banks of the rivers of Pará, where the current runs slowly and the roots can cling to the mud. The fiber brings 300 to 360 reis per kilogram unloaded in Belem.

CHILE.

According to data published by the superintendency of the customs, THE EXPORTATION OF GRAINS effected through the ports of the country was as follows: Green peas, 1,226,015 kilos; oats, 21,561,648 kilos; barley, 24,450,728 kilos; beans, 9,472,298 kilos; wheat flour, 10,056,767 kilos; lentils, 2,647,229 kilos; potatoes, 297,135 kilos; and wheat 16,465,993 kilos.

The ANNUAL CONSUMPTION OF COAL in the country is reckoned at 2,500,000 tons in the following proportions: Nitrate industry and its railroads, 800,000 tons; government railroads, 500,000; privately owned railroads, 50,000; shipping, 450,000; mining and metal industries, 150,000; gas plant, 300,000; varied industries, 300,000; and domestic uses, 130,000 tons. Chile's present output of coal is 1,800,000 tons annually, making it necessary to import sufficient to supply the demand.

The bureau of the internal tax publishes the following figures on the TOBACCO INDUSTRY IN 1918: Companies registered: Existing factories, 143; factories in operation, 124; importers, 93; growers, 290; wholesalers, 369; retailers, 22,724; dealers in leaf tobacco, 26.

Leaf tobacco produced: Area planted, 1,512 hectares, and tobacco harvested, 2,832,481 kilos. Manufacture: Cigarettes, 68,100,578 packages of 14 each; 24,351,354 packages of 28 each; 16,469 packages of 98 each; cut tobacco in packages, 1,000,527 kilos; large cigars, 1,208,177; and small cigars, 1,275,520. Leaf tobacco sent to the factories, 3,292,086 kilos; turned into cut tobacco, 3,284,664 kilos; made into cigars, 12,914 kilos. Cut tobacco for manufactures, 2,664,087 kilos, of which 1,870,970 kilos were made into cigarettes and 1,038,839 kilos into packages of cut tobacco. Importation of tobacco: Leaf tobacco, 202,180 kilos; cut tobacco in packages, 32,564 kilos; cigarettes, 1,974,822 packages of 14; 137,681 packages of 28; and 34,714 packages of 98. Large cigars, 4,315,575; small cigars, 100,322. Tobacco tax: In accordance with laws 2,219 and 2,288. The tobacco tax in 1918 produced a total of 8,459,220 pesos, currency—i. e., 7,916,768 pesos on the national product, and 542,452 on the importation.

The Revista Economica of Valparaiso announces that all of the stock, amounting to 250,000 pounds sterling, of a company to build a NEW SUGAR REFINERY in the city has been subscribed.

In a cabinet meeting called by the President in Santiago the first part of August for the purpose of making a PLAN FOR THE CONSTRUCTION OF PUBLIC WORKS, it was agreed to construct some 60 projects at an approximate cost of 40,000,000 pesos in bonds. The projects include 8 railroads; 22 school buildings; 12 barracks for the army; 9 waterworks; various roads and bridges; a courthouse; a mint in Santiago; the sewer system of Coquimbo, Temuco, and Talcahuano; and the reconstruction, in Copiapó, of several public buildings destroyed by the earthquake. The section of the Alcones-Pichilemu Railroad line between Baquedano and Antofagasta and the line from Doñihue to Coltauco are among the railroads mentioned in the list of constructions.

A law has been passed by congress and ratified by the President authorizing the expenditure of 214,000 pesos gold (peso equals \$0.365) for the purchase of EQUIPMENT FOR THE ARICA-LA PAZ RAILROAD.

Señor don Rafael Urrejola was elected president of the CHAMBER OF COMMERCE OF CHILE at a general meeting held July 28.

The directorate of the nitrate producers of Chile, in view of the fact that statements from the various plants have not yet been prepared for the last fiscal year, has authorized the office in control of sales to postpone the settlement of the NITRATE BUSINESS of the year just ended until the end of 1919-20.

According to statistics just published the PRODUCTION OF NITRATE for the first six months of the present year was 22,609,878 Spanish quintales (Spanish quintal = 101 pounds), as against 36,723,-

954 for an equal period in 1918, showing a diminution of 14,114,076 quintales in the present year's production.

The business men of Puerto Montt held a meeting during the latter part of August for the purpose of founding a CHAMBER OF COMMERCE. One of the motions passed at the meeting was to present the government with a memorial of the advantages of Puerto Montt as a shipping port.

COLOMBIA.

According to the latest presidential message, during the fiscal year of 1918 28,000,000 kilograms of salt were taken from the SALT MINES OF ZIPAQUIRA; 3,000,000 kilograms were sold as first class and 25,000,000 as second grade. The gross receipts were 954,000 pesos (peso equals \$0.9733). And the expenditures were 150,000 pesos, showing that salt brought a net profit of \$04,000 pesos.

The government of Huila signed a contract with the firm of Pedro A. Lopez, of Bogota, for the construction of a RAILROAD FROM ESPINAL TO CAQUETA, via Neiva, the work to be completed in six years.

The TOBACCO EXPORTS for 1918 amounted to 3,916,575 kilograms, worth \$1,004,693. This export has increased more than 300 per cent in the past seven years. During the early years of the Republic, until 1855, tobacco was the second principal export of the country; from that date until 1879 it became the chief export, 1856 being the largest exporting year the country has ever known, with a record of 5,106,023 kilograms exported and valued at \$3,092,204; from 1874 to 1875, inclusive, 7,825,520 kilograms, worth \$2,727,522, were exported. By 1879 the exportation was steadily declining, with occasional rises, but now there is a reaction and there will probably be a great future for the industry.

An AUTOMOBILE TRUCK AND PASSENGER SERVICE has been established between the Sesteadero station on the Tolima Railway line and the city of Ibague, a distance of 18 kilometers.

On the 23d of July a contract was signed in the department of public works by the attorney for the PACIFIC RAILWAY CO. and the national government to turn this railroad over to the government. According to the contract the railway company will refrain from making any indemnification effective, and the Government will take over the drafts issued by the railroad company in favor of its creditors. The administration of the railroad as well as all its construction material will be handed over to the Government, which will continue its operation. The government will guarantee with notes of the interior loan the payment of the drafts issued by the railroad in favor of its creditors.

According to a Colombian article on the BENEFITS OF COFFEE, the crop in Colombia provides work for 250,000 laborers and pays them \$12,000,000 wages yearly; freight handlers, at a rate of \$1.50 a day each, receive \$900,000 yearly; railroad and navigation companies, \$1,200,000; insurance companies, \$360,000; brokers, \$75,000; and sack manufacturers, \$600,000. Aside from this the crop leaves a surplus of \$15,000,000 or \$16,000,000, which come into the country as merchandise, machinery, or streams of money which stimulate all the other industries.

CUBA.

A Habana paper states that from an excavation recently made in one of the streets of the town of Guanabacoa for sewer purposes a large STREAM OF OIL suddenly gushed forth.

Early in September a company was formed in Habana to develop the ASPHALT DEPOSITS AND OIL FIELDS known as "La Central" and "Egypto," situated on the properties of Santa Lugarda and San Antonio in the Province of Santa Clara. These mines comprise 188 claims—188 hectáres belonging to the former and 90 to the latter.

The department of public works has begun the construction of a new ZONE OF COMMUNICATIONS to connect by good roads the outlying districts of Luyano and Atares and other points with the capital of the Republic. This zone will begin at the arroyo of Agua Dulce and extend to the end of the concession granted by the government to the Wolf Warehouse Co., on the slopes of Castillo de Atares. From this point the work will be continued to Hacendados, using for the purpose lands of the Habana Electric Co. and others belonging to different concerns.

Presidential decree of August 27 repeals No. 1696 of October 29 of 1917 regulating the sale of sugar for local consumption, fixes THE MAXIMUM SALE PRICE FOR SUGAR, raw, crystallized, and refined, and provides that the exportation of these sugars remain exempt from the terms of the decree and subject to the contract made by the government of the Republic with the "United States Sugar Equalization Board (Inc.)," on October 24, 1918, and the decrees and resolutions concerning the same.

La Compañía Cubana de Zunchos y Gomas S. A., has completed a new building, next to its manufacturing plant, for the MANUFACTURE OF RUBBER ARTICLES. The company will make surgeons' rubber gloves and other articles of national consumption.

Several sugar factories are preparing to install oil-burning engines during the off season, and figure on considerable saving, since coal is much more expensive than oil.

According to data published by the office of foreign and domestic commerce of the United States, Cuba receives 84 per cent of the

export of American manufactured automobiles sent to the West Indies. The value of the Cuban importation of automobiles has increased from \$323,578 in the fiscal year of 1913 to \$5,209,730 in the fiscal year of 1917, and to \$6,257,481 in 1918. The imports amounted to \$5,371,814 in the period from June, 1918, to March, 1919. During the last-mentioned period 456 commercial cars, 1,326 passenger automobiles, and 77 motor cycles valued at \$2,863,933 were imported; also tires and accessories to the value of \$2,507,881, which sums total the amount of the value of the importation for the period last mentioned.

About the middle of September an American ship arrived at the port of Manzanillo from Cartagena, Colombia, with a cargo of 970 HEAD OF COLOMBIAN CATTLE to be slaughtered.

AN ICE FACTORY is being constructed on the outskirts of Habana in the town of Guanabacoa. The factory will have the most modern machinery and capacity for turning out 150 tons daily. The machinery will be imported from the United States.

THE CUBAN TOBACCO BUSINESS has grown and given great results in the last few years. The average value of a thousand cigars exported in July, 1913, was \$67.74; in July, 1914, \$54.57; July, 1915, \$69.44; July, 1916, \$72.14; July, 1917, \$84.49; July, 1918, \$87.76; July, 1919, \$100.44. The average value per thousand cigars exported in the normal year of 1913, as compared with the value of a like number exported in 1919, shows an increase per thousand of 48.27 per cent.

DOMINICAN REPUBLIC.

A CIGAR FACTORY has been established in Bella Vista, a suburb of the city of Santiago. The factory employs 40 cigar makers.

Due to the fine results obtained by the department of agriculture in raising corn at an altitude of 1,200 meters, and to the many benefits to be obtained from raising the grain, a Dominican paper suggests that all the municipal governments that have high land in their jurisdiction take the example to heart and give information and assistance to those interested in its cultivation, since it is a necessity which has always had to be imported.

A COOPERATIVE CACAO SOCIETY has lately been formed in San Pedro de Macoris to help the development of the industry. The society is departmental and has four subdivisions—at San Pedro de Macoris, Pimentel, Villa Rivas and Castillo. The San Pedro de Macoris subdivision has 10 sectional associations. The society will establish an experiment station near San Pedro de Macoris, where new scientific systems of cultivation, drainage, and farming will be tried. A stock-breeding station will also be established by the society to improve the live stock in the province.

The first of September work was begun on the HIGHWAY which will run from Puerto Plata to Santiago de los Caballeros, by way of Yásica, and will join with the central highway being constructed to unite all the principal towns of Cibao with those of the east and south of the Republic.

As a celebration of the national holiday on August 16, A PROVINCIAL EXPOSITION OF AGRICULTURE AND INDUSTRY was held in Santo Domingo. The exhibition contained many interesting agricultural and industrial products of the province, one of the most interesting being samples of wheat raised in Jarabacoa and in the agriculture station of La Vega. Bread made from this wheat was on exhibition and attracted considerable attention.

ECUADOR.

According to a recent message of the President the work of building the QUITO TO ESMERALDAS RAILWAY has been divided into two parts,—namely, survey and construction. The first comprises the line between Pailon and the city of Ibarra, the survey of which is nearly completed. This division has, in turn, been divided into two other sections corresponding to the provinces of Imbabura and Pichincha. In Imbabura the grading has been done to kilometer 48, and in Pichincha to kilometer 36. At present work is being carried on at Chiche canyon. The length of the line between Quito and Ibarra is 167 kilometers, on 84 of which work has been done. The total cost of construction is estimated at 23,431,400 sucres (sucre = \$0.4867), made up as follows: Quito to Ibarra, 8,029,000 sucres; Ibarra to San Lorenzo, including interior port works, 14,602,400; and exterior port works, etc., 800,000 sucres. During the fiscal year just ended the amount expended on this enterprise was 249,477 sucres, and the total sum disbursed to date, 1,077,308 sucres.

The SIBAMBE TO CUENCA RAILWAY has been surveyed between Santa Rosa and San Antonio. Construction work on this road is divided into three parts: The first includes the junction of the Southern Railway, the second the grading from Chunchi, 20 kilometers of which have been done, and the third the grading from Descanso to Cuenca. During the first half of the present year 190,-000 sucres were spent in this work, and 300,000 sucres are to be made available for expenditures during the second half of this year.

The main line of the RAILWAY FROM GUAYAQUIL TO THE COAST has been built to kilometer 75, and the Playas branch has been completed. These two sections have a total of 101 kilometers. There are still 75 kilometers to be constructed before Salinas, the terminal point, is reached.

Since the bureau of agricultural encouragement (dirección de fomento agrícola) was established by a legislative decree, agricul-

tural development in Ecuador has been greatly stimulated. At the present time, in accordance with a law of October 26, 1918, there are 54 agricultural development boards in operation in capitals of the provinces and cantons. These boards have large powers concerning rules and regulations, taxes, loans etc., within their respective jurisdictions.

The LOAN & CONSTRUCTION CO., of Ecuador, increased its capital in July last by 200,000 sucres, making its total capitalization 400,000 sucres.

Grace & Co. have established a direct LINE OF STEAMERS between New Orleans and the ports of Ecuador, Peru, and Chile.

GUATEMALA.

The Guatemalan press reports that an American firm, in combination with a banking company of Guatemala, is advancing large sums of money to the coffee growers for the PURCHASE OF GUATEMALAN COFFEE on a large scale. The firm referred to advances these funds to the coffee growers on their production of coffee, at a rate of 8 per cent per annum. If, when the times comes to liquidate this account, the agriculturist should not accept the price offered by the company, he remains at liberty to sell to whomever may offer a better price, taking advantage of competition, by paying only $2\frac{1}{2}$ per cent more on the sum advanced to him. That is to say, the coffee growers pay $10\frac{1}{2}$ per cent annually on such sums as have been advanced to them in case they decide not to sell their product to the company.

In accordance with an estimate on the probable PRODUCTION OF CEREALS during the present year which has just been published by the bureau of agriculture, the area of cereals under cultivation during the first six months was distributed as follows: Corn, 122,067 manzanas (a manzana equals $1\frac{3}{4}$ acres); beans, 3,994 manzanas; wheat, 2,705 manzanas; rice, 3,489 manzanas; potatoes, 1,198 manzanas; yuca, 289 manzanas. Up to last August the condition of the crops was considered normal in the cooler sections of the department of Jalapa; in the municipalities of Sansare and Sanarate in El Progreso; in the municipalities of Palencia, of Guatemala; and in the departments of Huehuetenango, Santa Rosa and Sacatepequez.

In connection with the festivities on the occasion of the anniversary of the independence of Guatemala, last September, there took place in the city of Quezaltenango an EXHIBITION OF CATTLE AND SHEEP at which there was a large attendance. Prizes and diplomas were awarded to those exhibiting the best specimens.

In the early part of July, 1919, the governor of Quiché officially opened the new ROAD which now connects Quezaltenango with Totonicapan and Quiche, extending through the hills of Maria Tecun, and winding up into the mountains to a height of about 13,000 or

14,000 feet, through the towns of Santo Tomas de Chichicastenango and Omaso. Recently, several persons made the trip between the two terminals in automobiles without incurring any trouble, demonstrating the excellent construction of the road.

By a presidential decree bearing the date of August 7, 1919, the General Inspector of ENEMY ALIEN PROPERTY was ordered, in accordance with the provisions of decree No. 742 of October 5, 1918, to proceed to take over the electrical plant of Quezaltenango, as well as the property of the Occidental Telephone Co. through such regular legal formalities that, when the companies finally become nationalized the former shall be the property and under the immediate control of the municipality of Quezaltenango, and the latter under the immediate management of the National Bureau of Telegraphs and Telephones.

HAITI.

A very interesting article on the MINING AND AGRICULTURAL POSSIBILITIES OF HAITI appeared in a recent issue of *Le Matin*, a daily newspaper published in Port au Prince. The writer, M. J. R. Chenet, after having recalled the early exploitation of the gold mines of the island at the time the latter was known as Hispaniola, states that even to-day nuggets are frequently found in the Riviere Doree (Golden River) in the region of Dondon and Grande-Riviere. Copper as well as several other minerals are known to exist in commercial quantities in different parts of the Republic.

According to press information two large SUGAR PLANTS will be established shortly in the Quartier-Morin and Fort Laliberté.

By a decree published in *Le Moniteur*, the Haitian official gazette, the President of the Republic has authorized the ROYAL BANK OF CANADA to establish a branch office in Port au Prince and transact a general banking business in the country.

Owing to the drought which materially reduced the crops in different parts of the country the President of the Republic, by a decree dated September 12, has prohibited the EXPORTATION OF THE FOLLOWING HAITIAN PRODUCTS: Corn, rice, millet, cassava, potatoes, beans, bananas, white and sweet potatoes, starch, fowls, and coal. The decree covers in a general way all foodstuffs produced in the country.

MEXICO.

In accordance with the statements made in the recent presidential message, the improvement of the general condition of the Republic has been shown to be remarkable, especially in the branches of industry and commerce. The mining industry has been the principal factor in the development of the country. During the year referred to, 3,466 MINES WERE RECORDED, covering a surface

of 89,405 hectares, and 764 applications were favorably acted upon and the respective titles issued. There were also issued 64 permits to prospectors, and 96 for preliminary work on mines on which title had not yet been secured, while proceedings were begun to declare void 695 titles. There are now 3,736 mines which are being worked, an increase of 3 per cent over those in operation last year; but the increase in the profits on metals and minerals has advanced 20 per cent, silver and copper being in the lead. Last year the **VALUE OF THE MINING PRODUCTION** was about 305,000,000 pesos.

In 1918 the **PRODUCTION OF PETROLEUM** amounted to 10,147,588 cubic meters, or 63,820,836 barrels, and judging from the amount already produced from January, 1919, to the present date, it may reach 15,875,000 cubic meters, or 80,000,000 barrels—an increase of 20 per cent over the production of the previous year. It should be borne in mind that the production represents only 10 per cent of what could be obtained from the 310 producing wells which have been bored and the potential product of which is nearly 300,000 cubic meters, or 1,800,000 barrels, daily. During the time in question 31 permits for boring wells were issued, 16 of them having already been worked, with a production of 47,470 cubic meters, or 298,591 barrels, daily. The piping system for petroleum has been increased by 73 kilometers, making the present extension of the system 1,245 kilometers, not including 60 kilometers additional which will soon be in operation.

Fifteen permits have been issued for the construction of tanks for the **STORAGE OF PETROLEUM**. There have already been erected 25 steel tanks, with a total capacity of 7,674,000 cubic meters, or about 48,000,000 barrels.

The President has done everything possible in order to establish in the country the greatest possible number of **PETROLEUM REFINERIES**, as he maintains that the refining of this product is the most important part of the petroleum industry. At present there are only four refineries, but work will soon begin in the refineries which are now being installed by the Texas Co. of Mexico and the Atlantic Refining Co. The total capacity of the refineries so far established amounts to 14,300 square meters, or 90,000 barrels daily, and 22 per cent of the total of the exported petroleum is represented by the refined article.

During the year referred to, six temporary permits were issued for the **EXPLOITATION OF SALT MINES**, two for the exploitation of nitrates, and five for guano.

With regard to the **INDUSTRIAL CENSUS**, the President's message states that it has been taken slowly during the past two years and is about to be completed. He adds that up to September last 3,805 industrial establishments had been registered, which, being

distributed in accordance with a general classification, are thus grouped: Food industries, 693; textile, 213; metal, 614; electrical, 40, and sundry, 2,245. Taken as a whole, these establishments represent a capitalization which amounts to about 240,000,000 pesos, employing 35,000 workers.

NICARAGUA.

The President, considering that the decree of June 1, 1861, no longer covered the necessities of modern shipping in the Great Lake of Nicaragua and San Juan del Norte River, has just issued REGULATIONS FOR INTERIOR SHIPPING on the lakes and rivers of the Republic. The right to operate shipping lines will be given only to vessels under the Nicaraguan flag, or to such others as permitted by international treaties or contracts with the Government. The Regulations also call for the organization of a body of merchant marine in the principal ports of the national lakes and rivers.

Recently a national company has been organized to exploit the BALSAM trees in the Department of Chontales, and to export the product to the United States.

During the latter part of July three United States stockmen came from Salvador to Nicaragua to contract for the IMPORTATION OF BLOODED STOCK to improve the strains of Central American stock. The visiting stockmen have informed the Nicaraguan press that it is the purpose of the Salvadoreans to import some 10,000 cattle, of which 4,000 will be Holstein.

A tobacco merchant of Maysaya calculates the NATIONAL CONSUMPTION OF TOBACCO at 10,000 quintales per year. The last crop produced 12,000 quintales.

According to reports of the Managua press a considerable amount of CORN HAS BEEN EXPORTED TO EL SALVADOR, and the business is creating a prosperous condition in the Department of Chinadega, where corn is cultivated extensively.

According to the Agricultural and Stockmens Review of the departments of the Republic, the Department of Managua is the principal seat of COFFEE CULTIVATION, having 223 "fincas," or plantations engaged in the cultivation of 29,978 manzanas of land, planted with 10,799,800 coffee trees, which yield a crop of 67,440 quintales of coffee.

This same Review states the work on the construction of the highway between the Great Lake of Nicaragua and Bluefields has been begun. The first section, the work of the Government, will go direct from the lake to the above-mentioned port; the second section, which belongs to the Bluefields Fruit Steamship Co., will lead to the main establishment on the large agricultural and stock-raising plantations

owned by the company. When these roads are constructed the departments of Chontales and Bluefields will be the two of most importance in the Republic. The same Review in describing the DEPARTMENT OF CHONTALES says: "Bathed along a coast of 90 miles by the eastern waters of the Great Lake it enjoys an easy way of communication with the departments of Granada and Rivas through navigation on the lake, and through these departments Chontales will have access to the cities of the Pacific. High in the mountains of the interior the rivers Mico and Grande have their sources and flow through a country which as it grows commercially will be kept in communication with the Atlantic by these rivers. Chontales' geographical position with respect to the rest of the departments is most advantageous, since on one side it has the lake and on another the rivers which give it means of transportation to both oceans. So far nothing has been done to develop these natural waterways, but as the country progresses they will be improved, Chontales is situated in the middle of the Republic and will be a center between the two oceans for the development of agriculture, mining, and cattle raising."

PERU.

The President issued a decree on the 19th of August preventing the EXPORTATION OF ALFALEA SEED as a protective measure for insuring sufficient feed for stock.

According to data published by the Compañía Salinera, of Peru, the SALES OF FOOD made by them in Lima from the 1st of January, 1917, to the 30th of June of the present year amounted to 2,451,165 soles (sole equals about \$0.486 U. S. gold).

A commission of engineers has been appointed by the President to INVESTIGATE THE IRON MINES on the coastal regions of the department of Ica, situated to the south of Rio Grande, extending from Nazca to the sea.

A Lima newspaper reports that the Hoshi Pharmaceutical Co., of Tokyo, a short time ago bought a piece of property covering 300,000 hectáreas of land on the right bank of the Huallaga River, between Huanuco and Tingo Maria, for the GROWING OF MEDICINAL PLANTS. The forests of the eastern part of the country are very rich in such plants, among them the chinchona, from which quinine is made. The company has a capital of 5,000,000 yen (yen equals \$0.4985) and is one of the most important in its line in the Far East.

THE COPPER OUTPUT of the Cerro de Pasco Co., from January to July, inclusive, for the present year amounted to 32,090,160 pounds. The output of the Backus & Johnston Copper Co. for the same period was 13,967,610 pounds, making a total of 46,057,770 pounds of copper produced by two companies in the first seven months of the year.

A BRANCH OF THE HOLLAND COMMERCIAL SOCIETY OF THE PACIFIC was organized about the 1st of September by a group of Dutch merchants and business men. This is the first Dutch company to enter the commercial field in Peru.

SALVADOR.

A company known as THE MARITIME AGENCY OF LA LIBERTAD, with a capital of 200,000 pesos (peso equals \$0.8019 U. S. currency), has been formed in that port, and will engage in the loading and unloading of cargoes and all business related thereto.

In the session of the national assembly held on the 19th of August the tax of 2.50 pesos per 100 kilos proposed by the ministry of the treasury to be placed on EXPORTATIONS OF SUGAR AND COFFEE was approved.

URUGUAY.

According to official reports the EXPORTS for the first four months of the present year were as follows: 22,000 tons of wool, valued at \$20,205,652; preserved and frozen meats, valued at \$19,595,099; hides, valued at \$6,899,446. The total export values amounted to \$50,780,992, of which the three above-mentioned products represented 90 per cent. The exportation of corn, wheat, flax, oats, alpiste (birdseed), and other grains in the same four months amounted to only \$382,609; flour and spaghetti, \$352,758; fruits and vegetables, \$2,268, and forage \$1,931. The exportation of farm products did not exceed \$740,000.

According to reports from the ministry of the treasury, the FOREIGN COMMERCE of the country during the first four months of 1919 totaled \$62,366,185, of which \$11,580,193 were imports and \$50,785,992 exports. The imports were \$206,849 less than in the corresponding period of 1918, while the exports showed an increase of \$12,504,160, over those of the same period of 1918. The values given for the exports are the real values, but the valuation of the imports is that given in the customs tariff.

During the first four months of 1919 the ANIMALS SLAUGHTERED were as follows: Beeves, 415,025; sheep, 358,119; hogs, 7,644; as against 373,330 beeves, 96,265 sheep, and 4,267 hogs in the corresponding period of 1918.

Of the South American countries, Uruguay is second only to Argentina in the PACKING-HOUSE INDUSTRY. Of the 1,033,804 beeves slaughtered in 1918, in Uruguay, 782,831, or four-fifths of the total, were for the packing houses; of the 326,548 sheep slaughtered, 119,768 were destined for the packing houses, and of 52,536 hogs 15,298 went to the packing houses. The number of animals slaughtered in the past five years for packing houses is shown in the

following figures: Beeves—1914, 435,064; 1915, 575,137; 1916, 542,809; 1917, 775,278; 1918, 782,831. Sheep—1914, 110,869; 1915, 157,950; 1916, 192,955; 1917, 87,934 and 1918, 119,768. Hogs—1917, 12,854, and 1918, 15,298. Three refrigeration plants or packing houses are in operation in the country—i. e. Swift & Co. of Montevideo, La Frigorífica Uruguaya, and El Frigorífico Artigas. Other packing houses established in Brazil or Argentina maintain offices in Uruguay for the purpose of buying live stock

During the first six months of 1918 the EXPORTATION OF MEATS by Uruguayan packing houses showed a total of 32,048 mutton and 264,399 quarters of beef. The same period in 1919 showed 238,160 mutton and 560,263 quarters of beef, or a sixfold increase in the exportation of mutton and the doubling of the export of beef.

VENEZUELA.

The National Congress has approved a contract made by the President for the building of a RAILROAD between the port of Cotorrera on Lake Maracaibo and Villa Rosario in the district of Perijá, State of Zulia.

The National Congress has also approved a resolution of the department of public works, dated the 11th of June, which concedes to the Caribbean Coal Co. an extension of one year to date from June 26 last, in which to pay the remainder of the guaranty provided for by article 11 of the law governing railroad concessions; and a two years extension from the same date in which to begin the construction of the RAILROAD FROM LOS CASTILLETES to Santa Rosa, or to "El Filón del Espejo."

The owners of gardens in Caracas have formed a HORTICULTURAL SOCIETY in order to improve floriculture in the country according to the newest method.

The Press of Caracas gives an account of an invention by the director of the workrooms of the Arts and Crafts School for Men, of a MACHINE TO MAKE SEALED BANDS to guarantee the safety of the contents of mail bags, customs bags, bank pouches, and for other similar purposes.

Presidential decree of the 13th of August regulates the law of June 4 covering the MANUFACTURE, SALE, AND CARRYING OF FIREARMS.



ECONOMIC AND FINANCIAL AFFAIRS

ARGENTINA.

The balance sheet of the Argentine Bank on July 30 last showed the following items among the assets: Discounts and rediscounts, 338,211,511 pesos, paper; advances on account current and securities, 287,311,227 pesos, paper, and 5,009 pesos, gold; and guaranteed collectible credits, 26,588,349 pesos, paper, and 16,349 pesos, gold. The cash on hand on the date mentioned was 309,271,166 pesos, paper, and 36,036,484 pesos, gold. The deposits 1,193,996,956 pesos, paper, and 3,139,622 pesos, gold.

The Buenos Aires customhouse collected REVENUES from January 1 to July 18, 1919, aggregating 10,225,557 pesos, paper, and 4,385,522 pesos, gold. These, added to the import duties, make the total receipts 68,295,984 pesos, paper, or 2,254,895 pesos more than those of the previous year.

The Conversion Bank (Caja de Conversion) had on July 18 last gold deposits as follows: Local deposits, 280,056,197 pesos; bonds for deposit in legations, 103,742,188 pesos; or a total of 383,798,385 pesos.

The department of finance makes the following statement of the **CONDITION OF ARGENTINE BANKS** on July 30 last: Deposits on account current, time, and savings deposits, 10,720,200 pesos, gold, and 2,858,001,962 pesos, paper; discounts and advances, 3,017,931 pesos, gold, and 2,004,598,408 pesos, paper; on hand in the country, 53,849,423 pesos, gold, and 829,457,235 pesos, paper; total paid-up capital, 47,865,413 pesos, gold, and 354,345,178 pesos, paper.

Carlos A. Tornquist, a noted financier, estimates that the receipts of the Argentine Republic for **PRODUCTS EXPORTED** during the period of the war between October 1, 1917, and September 30, 1918, amounted to 750,600,000 gold pesos; capital attracted to the country, 20,000,000 gold pesos; sale of banks abroad, 7,500,000 gold pesos; interest on foreign war bonds, 500,000 gold pesos; funds brought to the country by the Bank of the Argentine Nation, 3,150,000 gold pesos, or a total of assets amounting to 781,750,000 gold pesos. The liabilities are given as follows: Value of merchandise imported, 479,400,000 gold pesos; financial and other remittances, 167,800,000 gold pesos; decrease in foreign mortgages, 27,700,000 gold pesos; short-time loans, 20,000,000 gold pesos; entry of Argentine bonds, 5,000,000; subscription to war loan, 12,700,000; loan to French and British Governments, 177,300,000; and increase of gold in the country, 58,042,900 gold pesos; or a total of 947,942,900 gold pesos.

BOLIVIA.

On December 31, 1918, THE AMOUNT OF GOLD ON DEPOSIT in the banks of Bolivia was as follows: Banco de la Nación Boliviana; 7,916,997 bolivianos (boliviano equals \$0.3893); Banco Nacional de Bolivia, 3,467,519 bolivianos; Banco Mercantil, 1,622,350 bolivianos; Banco Francisco Argandona, 980,337 bolivianos; making a total of 13,987,203 bolivianos.

THE BANCO DE LA NACIÓN of Bolivia, of which 65 per cent of the shares are owned by the Government, declared on June 30, 1918, a net profit of 1,510,495 bolivianos, and on December 31, 1918, 1,558,295, or a total of 3,068,790 bolivianos. The reserves for the year were raised during 1918 to 2,000,000 bolivianos, which added to other convertible funds amounts to 2,009,381 bolivianos representing 21 per cent of the payable capital, putting the bank on a very solid basis. The circulation of the bills of the bank, amounting to 20,388,896 bolivianos on December 31, 1917, in 1918 went up to 25,984,984 bolivianos, or an increase of 5,596,088 bolivianos. The profits of this bank from the date of its foundation in 1911 up to the 30th of June, 1919, amounted to 15,762,249 bolivianos. The state of the bank on the 30th of June last was as follows: Cash on hand, \$13,277,654 bolivianos; bills in circulation, 26,613,141 bolivianos; foreign assets 18,434,302 bolivianos; deposits, 18,526,162 bolivianos; investments in notes, 36,510,374 bolivianos; net profit, 1,563,998 bolivianos.

The profits from the TOBACCO MONOPOLY were as follows: June 30, 1918, 476,112 bolivianos; December 31, 1918, 532,144 bolivianos; and June 31, 1919, 521,536 bolivianos. In accordance with the contract made with the tax administrative company, the Government receives 70 per cent of the collections.

In the five-year period 1914-1918, inclusive, THE CUSTOMS REVENUE was as follows: 1914, 9,219,647 bolivianos; 1915, 6,437,859 bolivianos; 1916, 9,669,349 bolivianos; 1917, 13,745,716 bolivianos; 1918, 16,151,025 bolivianos; making a total of 55,223,598 bolivianos. The first three months of the present year the customs revenue was 2,653,938 bolivianos, as against 3,484,823 in the like period of 1918.

BRAZIL.

The board of directors of THE SÃO PAULO RAILROAD CO. presented a statement on June 25, giving the figures for 1918. The company carried 1,976,889 passengers, 315,851 animals, 422,954 tons of coffee, and 1,033,782 tons of general freight. In 1918 there were 10,868 immigrants transported free, making a total number of 711,635 immigrants that the company has transported into the interior of the State of São Paulo since 1882, and whose transportation would have amounted to \$875,000. The receipts for the year were 31,409 contos and the outlay 18,927 contos (conto paper

equals about \$275 U. S.), showing a profit of 12,401 contos, which, with the surplus of the previous year, amounts to 15,210 contos, distributed as follows: Interest on the external indebtedness, 1,681 contos; amortization of the same, 1,418 contos; dividends for the first and last half of 1918 at the rate of 10 per cent, 9,200 contos; put with the reserve fund, 200 contos; for pension fund, 129 contos; forestry service, 586 contos; leaving a surplus of 2,004 contos for 1919. The outside indebtedness of the company was reduced to £1,691,200 sterling, the reserve fund raised to 4,400 contos, and the pension fund to 1,870 contos. The directorate proposes to continue the work on the Nova Odessa-Piracicaba branch. Plans and surveys have been made for the continuation of the Piratininga line up to the headwaters of the Tiribica, an extension of 90 kilometers. The company owns 7,586 hectares of timberland, the acquisition and development of which represents an investment of 3,200 contos. Up to March 31, the company had planted 5,697,600 trees, of which 5,625,800 are eucalyptus, 1,685,500 of them having been planted in 1918. The company's capital has been raised from 92,000 to 100,000 contos by means of an issue of 40,000 shares, selling for 200,000 reis a share.

THE TELEPHONE COMPANY, RIO GRANDENSE, of Porto Alegre, has secured a loan of 2,000 contos to cancel its floating debt and improve its lines and offices. The loan is contracted by an issue of 13,500 bonds of 200,000 reis, nominal value each, with 8 per cent annual interest and 2 per cent annual amortization.

The government of the State of Paraná has contracted with the American capitalist Mr. Samuel Adviz, to found an AGRICULTURAL AND LOAN BANK, with a guaranteed capital of 15,000 contos.

A SYRIAN BANK is soon to be founded in São Paulo, and the manufacturer, Senor Mauri Jafet, will be a member of its board of directors.

A NATIONAL INSURANCE CO., with a capital of 1,000 contos, has been founded in the city of Santos. The president of the company is Deputy Azevedo, Jr., and the secretary is Senhor George Cox.

CHILE.

The Government has authorized the COINING OF 20,000,000 PESOS, NICKEL, in 10, 20, and 5 cent pieces, and copper 1 and 2 cent pieces, also the coining of 5,000,000 PESOS, SILVER, in 1 peso coins. There will also be issued to the amount of 4,600,000 pesos, the ONE PESO BILLS now held in the fiscal office of the issuance of currency, to replace worn 1 peso bills. The composition of the nickel coins will be 25 per cent nickel, with the same marks and legends as the present silver coins, changing the letters designat-

ing the value to numerals. The composition of the copper coins will be 95 per cent copper, 4 per cent tin and 1 per cent zinc. The silver coins will be 50 per cent silver, 9 grams in weight and 29 millimeters in diameter. The law also provides that nobody shall be obliged to accept more than 50 pesos in nickel money.

The ministry of the treasury has issued a decree authorizing the directorate general of accounting to ISSUE FISCAL BONDS to the amount of 5,000,000 pesos, currency, under the guarantee of the State, with 7 per cent interest and 1 per cent amortization. The funds from these bonds will be distributed in the following manner: 3,000,000 for school buildings, and 2,000,000 for irrigating systems.

During the first seven months of the present year, the CUSTOMS REVENUES amounted to 37,717,104 gold pesos (gold peso equals \$0.3650) and 30,748,366 pesos currency. The export duty on nitrate was 9,345,292; on iodine, 554,825; and on borax, 40,778 pesos, gold.

THE BALANCE OF THE NITRATE RAILROAD operated by the Anglo-Chilean Nitrate Co. as concessionaire, in 1918 showed a profit of £31,864, which added to the profit of the previous year reached a total of £296,819 available for the present year. During the year the railroad transported 245,641 tons of freight, and 27,611 passengers, as against 92,523 tons of freight and 28,823 passengers of the previous year. The output of nitrate was 2,275,700 quintales.

THE STATEMENT OF LA ARAUCO CO. (LTD.), made on April 30, shows a profit of £11,063. In October of the past year this company declared a dividend of 5 per cent, and has now declared another for the same amount, both of these being tax-free. The company turned £50,000 into the reserve fund, leaving a balance of £25,850 for the present year. The railroad of this company turned in a net profit of £54,696, and the mines a profit of £117,657. During the past year 170,856 tons of coal were sold.

COLOMBIA.

The PROPOSED BUDGET OF 1920-21 presented to congress by the treasury department estimates the national income for the fiscal year from the 1st of March, 1920, to the last day of February, 1921, at \$19,740,750 gold, the principal sources of revenue being calculated as follows: Customs duties, \$10,000,000; salt mines, \$1,000,000; income tax, \$1,000,000; officially stamped paper and postage, \$900,000; excise tax, \$800,000; consular fees, \$800,000; telegraph lines, \$750,000; salt deposits, \$655,000; coining of money, \$600,000; oil companies, \$500,000; railways, \$407,000; canalization tax, \$400,000. The expenditures are fixed at \$19,324,000.

According to figures furnished by the ministry of the treasury on MONEY COINED IN COLOMBIA from January 1, 1918, to June 30, of the present year (i. e., in a period of 18 months), the mint of

Medellín coined \$5,661,909, of which \$2,246,742 were issued in 1918 and \$3,415,167 in the six months of 1919.

According to a TABLE OF PUBLIC REVENUES AND EXPENDITURES FROM 1906 TO 1918, INCLUSIVE, the sum of the revenue of the 12 years was \$186,413,347, gold, and the expenditures \$188,534,603, gold, resulting in a deficit of \$2,121,256. The receipts and expenditures appear even from 1906 to 1914; the years 1916, 1917, and 1918 show deficits of \$2,255,265, \$1,484,865, and \$1,162,515, respectively; and only one surplus, of \$2,781,390, in 1915.

The President has authorized the municipality of Girardot to contract a LOAN OF \$5,000 for the construction of important public works.

About the middle of August the first issue of GOLD COINED IN BOGOTA was put in circulation. The coins are half condors, equal in value to an English pound sterling (\$4.8665), and are perfectly made.

AN EXCHANGE AND DISCOUNT BANK, with a mortgage and loan section called "Credito Caucaño," has just been founded in Popayán, capital of the department of Cauca.

BRANCH BANKS have been opened by the Banco Mercantile Americano and the Banco Lopez de Bogota in Bucaramanga, and by the Banco Lopez in Barranquilla; and a branch of the American Banking Corporation of New York in the city of Cali.

As an act of commemoration of the battle of Boyacá, on the 7th of August, the CENTENNIAL BANK, with a subscribed capital of \$100,000 gold, was founded in the city of Sogamoso.

The Banco Mercantile Americano de Colombia, for the use of its branches in Bogotá and other points in the Republic, has imported \$6,000,000 IN COINED GOLD.

The municipality of Medellín has contracted a LOAN OF \$250,000 with the Banco Alemán-Antioqueño of that city to build an electric street-car line that will cover the city from north to south and east to west.

The following data were given in the message read by the President at the opening of the present session of Congress: CIRCULATION OF MONEY, 7,700,000 pesos coined gold (peso equals \$0.973) 10,180,000 paper money, 6,460,000 silver coins, and 1,194,000 nickel coins; to this must be added 3,200,000 pesos in treasury certificates, and 1,200,000 small mortgage certificates of banks, making approximately a total of 30,000,000 pesos in circulation.

CUBA.

According to figures published by the general directory of commerce and industry the REGISTRATION OF STOCK COMPANIES during the fiscal year 1918-19, in all mercantile registries of the Republic shows a total of 303, with a total capital invested of \$301,678,944.

The companies cover the following lines: General business, 131; oil and mines, 43; sugar industries, 22; general industry, 94; insurance companies, 13.

On the 1st of September a new banking house commenced operations in Habana, known as the BANCO DE PROPIETARIOS INDUSTRIALES Y ARRENDATARIOS (Real Estate Bank), with a large capital and a handsome building on the Calzada de Reina.

On the same date the new offices of the BANCO MERCANTILE AMERICANO OF CUBA were opened in the lower floors of Palacio Barraqué, one of the best buildings in Habana. Since January of the present year, when this bank began operations, it has invested in Cuba over 10,000,000 pesos in loans, discounts, and advance payments to its clients.

A Habana daily paper states that upon recommendation of the minister of the treasury the President has authorized the COINING OF 3,000,000 SILVER PESOS, with their respective fractions of pesetas, reales, and nickels.

The first part of September a BRANCH OF THE BANCO NACIONAL DE CUBA was opened in the town of Cabañas.

THE CUSTOMS REVENUE OF HABANA during the months of July and August amounted to \$5,517,749, of which \$2,800,284 was collected during the first month and \$2,717,465 during the second.

DOMINICAN REPUBLIC.

According to statistics published by the commission on customs revenues the IMPORT TAX IN 1918 amounted to \$3,900,000.

The REVENUE COLLECTED BY THE CUSTOMHOUSE OF SAN PEDRO DE MACORIS was \$485,529 gold for the first seven months of the year, collected as follows: January, \$42,879; February, \$75,302; March, \$71,021; April, \$71,261; May, \$60,741; June, \$63,467; July, \$100,858.

According to information given to the press by the DOMINICAN COMMISSION OF CLAIMS on the work accomplished by this body since 1917 up to the 31st of August, 1919, there were 8,905 claims, representing \$14,293,074 registered in this time, of which 2,642, representing \$1,412,846, were adjudicated, and 488, amounting to \$1,432,725, were rejected.

ECUADOR.

According to press reports a BANK is to be established at Latacunga from the proceeds of the sale of real property owned by Vicente Leon College, that institution taking 50 per cent of the stock, the remainder to be subscribed by the public. The sale of the property is not to be made until the public subscribes the 50 per cent referred to. The bank will have mortgage, issue, and discount sections.

The AZUAY BANK of the City of Cuenca has declared an extra dividend of 2 per cent, and has reduced its annual rate of interest to 10 per cent. Rafael M. Arizaga, formerly minister of Ecuador in Washington, is chairman of the board of directors of this bank.

The President of the Republic has negotiated a LOAN of 500,000 sucres with the Commercial & Agricultural Bank of Quito, the proceeds of which are to be used for account of the Sibambe to Cuenca Railway.

In 1918 the RAILWAYS of Ecuador disbursed the following amounts: Ambato to Curaray, 147,558 sucres; Sibambe to Cuenca, 146,708 sucres; Quito to Esmeraldas, 249,477 sucres; Guayaquil to the coast, 3,000 sucres; Bahia to Quito, 9,334 sucres; and Guayaquil to Quito, for the correction of the San Juan Chico to Riobamba section, 24,200 sucres, or a total of 580,277 sucres.

The cost of the SANITATION of Guayaquil from January 1, 1914, to December 31, 1918, was 3,298,570 sucres, of which 472,279 sucres were paid to the contractors in 1918. Last year there were expended in the sanitation of other towns of the Republic 10,746 sucres, and during the first half of the present year, 15,832 sucres. (Sucre = \$0.4687.)

The total expended in PUBLIC WORKS during the fiscal year 1918-19 aggregated 1,238,143 sucres.

According to a message of the President to Congress on August 10 last, the FISCAL RECEIPTS for 1918 amounted to 14,015,445 sucres, including the balances on hand in the treasury and consulates of the Republic at the beginning of the year, plus the profits derived from the mintage of nickel coin authorized by Congress. The fiscal expenditures during the same year were 15,887,718 sucres, which produced a deficit of 1,872,173 sucres. The fiscal revenues were made up as follows: Import duties, 3,868,490 sucres; export and additional duties, 3,401,245; internal taxes, 6,490,125; and sundry receipts, 255,585 sucres, or a total of 14,015,445 sucres.

In 1918 the gross revenues from SALT amounted to 1,157,020 sucres, and the net revenues to 700,714, or a gain of 201,784 sucres over the net returns of 1917.

In 1918 payments were made on the PUBLIC DEBT as follows: To sundry creditors, 1,525,500 sucres, and interest and sinking fund for account of the Guayaquil to Quito Railway, remitted to London from December, 1918, to July of the present year, £120,500, or 1,205,000 sucres.

GUATEMALA.

The representative in Guatemala of the FOREIGN BONDHOLDERS, of London, has notified the Guatemalan press that by an order of the President of the Republic, on last July 1, the amount of the interest on the foreign debt of Guatemala of 4 per cent per annum was paid a year in advance.

By order of the official inspector of banks and banking institutions in Guatemala all such concerns must post in a conspicuous place a bulletin board on which shall be written daily the RATE OF EXCHANGE at which they buy and sell the following: Checks on the United States of America, Europe, Mexico, and South America; gold and silver money of the country and of any foreign nations; bank notes issued by the banks of the United States of America and by other countries.

HAITI.

A law promulgated on September 2 authorized the President of the Republic to place at the disposal of the secretaries of state in charge of the public departments CREDITS totaling 4,602,774 gourdes and \$3,748,498. These credits, which will be employed to cover departmental expenditures during the fiscal year 1919-20, are distributed as follows: Foreign relations, 46,140 gourdes and \$89,277; finances and commerce, 814,180 gourdes and \$9,688; interior, 494,727 gourdes and \$1,306,877; public works, 223,900 gourdes, and \$622,380; agriculture, 60,236 gourdes and \$8,110; public instruction, 1,652,666 gourdes and \$65,969; justice, 1,069,935 gourdes and \$31,772; worship, 40,680 gourdes and \$59,850; public debt reserve fund, \$1,000,000; various governmental services, 200,309 gourdes and \$554,573.

A presidential decree of September 6 appropriated a sum of \$25,000 for the CONSTRUCTION OF A ROAD linking the town of Ennery and Hinche through St. Michel and Maïssade.

MEXICO.

The following data relating to economic and financial matters has been taken from the last presidential message covering the time from September, 1918, to August, 1919:

The operations of the NATIONAL PAWNSHOP in the city of Mexico show a total of 1,800,000 pesos in loans; indorsements to the value of 4,220,172.25 pesos—an increase of over 500,000 pesos over previous reports.

The number of FOREIGN CLAIMS for damages caused during the revolution amount to 87, and these have been submitted to the advisory claims committee for their consideration. These claims represent a total of 13,469,191 pesos and are distributed by nationalities as follows: Spanish, 33; Turkish, 16; German, 19; French, 2; Italian, 2; Americans, 9; Chinese, 2; Gautemalans, 1; English, 1; Dutch, 1; Austrians, 1.

During the year the embassies, legations, and consulates of the Mexican Republic in foreign countries collected for the legalizing of signatures, customhouse manifests, consular invoices, licenses, and the issuance of certificates, the amount of 7,255,316 pesos, against

5,669,390 pesos during the previous year, and 1,148,963 pesos from 1909 to 1910. These COLLECTIONS are far in excess of the budget of the State department, which only amounts to about 2,400,000 pesos, and shows that the foreign offices not only meet all of their own expenses but also turn in a goodly income to the public treasury.

The TOTAL AMOUNT OF THE INSURANCE POLICIES carried by all the insurance companies operating in the Republic is distributed as follows: Life insurance, 56,101,498 pesos; accident, 824,000 pesos; fire, 875,446,433 pesos; property risk, such as personal property and real estate, 90,174,141 pesos.

The NATIONAL REVENUE for the 10 months from September, 1918, to June 30, 1919, amounted to 135,301,000 pesos. The income was distributed as follows: Customhouse duties, 27,600,000 pesos; exports, 6,450,000 pesos; harbor charges, 1,644,000 pesos, or a total of 35,694,000 pesos. Taxes on petroleum amounted to 13,100,000; metals, 11,900,000; common stamps, 11,550,000; federal tax, 27,100,000; other sources, 22,178,000; a total of 85,550,000 pesos. From consulates (approximate estimate), 5,000,000 pesos; post office and telegraph (approximate estimate), 7,400,000 pesos; nationalized properties and temporary national holdings, 730,000 pesos; and sundry sources, 649,000 pesos.

As a result of the liquidations that have been carried out, the commercial paper held by the banks, which a year ago represented a total of 81,000,000 pesos, at present amount to only 77,400,000 pesos. There is a proportional decrease in the CURRENCY IN CIRCULATION, which has decreased from 126,000,000 pesos last year to 119,000,000 pesos this year. The bank deposits have also diminished, although the reduction is small. A year ago they amounted to 41,000,000 pesos, while at last reports they were 40,000,000 pesos. At the same time the credits which the banks held against the national government have been reduced by nearly 1,000,000 pesos because of the several payments made to the bank. Currency retired from circulation, amounting to 94,500,000 pesos, has been burned.

NICARAGUA.

For the months of May and June of the present year the NATIONAL TAX REVENUE was 344,042 cordobas, of which 109,307 cordobas were collected in May and 234,735 in June. (Cordoba equals \$1.)

According to figures of the collector general of customs and direct taxes the revenue from the ADDITIONAL TAX of 12½ per cent ON IMPORTS in the present year amounted to 90,000 cordobas and the revenue from the direct tax on capital to 70,000 cordobas.

La Informacion, a newspaper of Bluefields, announces the appointment of Señor Martín Benard as FINANCIAL AGENT from the Republic of Nicaragua to the United States, to be located in Washington. The chief purpose of the mission is to negotiate with the

banking firm of Brown Bros. & Seligman for the purchase of the 51 shares of the Pacific Railroad and the bonds held by the firm. The agent will also try to make favorable terms for the construction of the Atlantic Coast Railroad.

PERU.

Presidential decree of August 13 makes the ruling that after the 1st of September of the present year the customs of Callao, the Caja de Lima (bank), the government treasury of Callao, the offices of the tax-collection company, the departmental committees, the municipalities, the charitable societies, and other official institutions which administer the public revenue in the Provinces of Lima and Callao, shall accept only the NOTES ("circular checks") lithographed in the United States, and shall, within the time limit mentioned, exchange the notes now on hand that were lithographed in Lima.

THE NET PROFIT for the six months period from January to June obtained by the Peruvian Steamship Co. and Callao Docks amounted to 203,503 Peruvian pounds (Peruvian pound equals \$4.8665).

The BANCO MERCANTIL OF PERU has opened a branch in Trujillo to conduct all kinds of banking business necessary to the development of the industries located in that region. This marks the beginning of the policy of the bank to establish branches throughout the Republic wherever the development of local trade warrants it. Branches of this bank have also been established in Arequipa, Callao, and Chiclayo.

In accordance with a presidential resolution the provincial council of Lima will levy a TAX OF 1 SOLE AND 50 CENTAVOS (about \$0.73) for every 100 meters of overhead or underground cable or telegraph wires of telegraph companies established in the city. This will have no effect on the law concerning the location of the poles.

SALVADOR.

The BUDGET FOR THE FISCAL YEAR OF 1919-20, just passed by the national assembly, estimates the fiscal revenues for the year at 13,360,450 pesos, distributed as follows: Customs revenues, 8,329,850; internal taxes, 5,030,600; and the expenditures as 13,541,533 pesos, proportioned as follows: National assembly and presidency of the Republic, 168,020; ministry of government, 3,345,127; department de fomento (promotion), 1,657,823; agriculture, 75,960; foreign relations, 334,185; justice, 919,054; public instruction, 1,269,381; public charity, 693,460; treasury, 878,521; public credit, 1,200,000; war, 3,000,000 pesos. The comparison of the income and the expenditures shows a deficit of 181,083 pesos.

Of the sum voted in the budget of the present fiscal year £51,074 sterling will be for the amortization of the interest of the CONVER-

SION BONDS and the expenses of the loan of 1908 on the coupons due August 15, 1919, and February 15, 1920.

The national assembly has received the draft of a law for its approval empowering the executive to contract a LOAN of \$10,000,000 to cover the deficit, pay the debts to banks, and other public necessities.

On the suggestion of the President the national assembly, the 1st of August, enacted a law changing Articles 8, 9, 36, 44, and 61 of the INCOME TAX LAW of June 16, 1916.

URUGUAY.

On August 5 the council of the administration sanctioned the LAW PROROGUING THE GENERAL BUDGET FOR 1918-19 until the end of the month.

THE CUSTOMS RECEIPTS for July, 1919, were \$1,450,564. The receipts for the past July show an increase of \$479,944 over those of the same month of the previous year.

The STATE OF THE BANKS as given in the month of April of the past two years is shown in the following figures: Cash on hand, April, 1918—gold, \$47,521,333; currency in circulation, \$41,283,820; deposits on accounts current, \$42,334,870; time deposits, \$28,844,701; discounts and advance payments, \$98,095,208. April, 1919—cash on hand, gold, \$50,022,000; currency, in circulation, \$51,070,315; deposits on accounts current, \$57,645,194; time deposits, \$40,257,954; discounts and advance payments, \$125,647,773.

THE PUBLIC REVENUE collected from July, 1918, to April, 1919, was \$25,581,467, as against \$24,280,406 for the same period of the previous year. In the 10 months ending with April, 1919, the customs revenue came to \$9,958,848, representing the average customs receipt for the same period in the past five years.

From July, 1918, to April, 1919, the RAILROAD RECEIPTS amounted to \$8,374,332, or an increase of \$1,192,252 over the receipts for a like period of the previous year.

During the first four months of 1919, 1,289 MORTGAGES aggregating \$7,906,003 were executed as against 1,398 for \$8,982,872 in 1918; 1,649 representing \$8,216,344 were canceled, as against 1,717 for \$9,360,236 in 1918.

During the month of July two new importations of gold arrived in Uruguay, the first ship bringing \$1,800,000 and the second \$8,355,000, making a total of \$10,155,000.

The first part of July THE QUOTATION OF THE DOLLAR went up to 94 per cent, reaching 99 per cent by the end of the same month. It is hoped that a few days more will find it at par with the Uruguayan peso. The rise in value is due to the exportation of gold from the United States with the purpose of restoring the parity of the dollar, which has suffered a depression of 10 to 15 per cent in the exchange with some South American countries.

VENEZUELA.

According to data published by the bulletin of the chamber of commerce of Caracas, in the 10-year period from the first of 1909 up to the 31st of December, 1918, the INDEBTEDNESS OF THE REPUBLIC has been reduced from 225,488,801 bolívares (bolívar equals \$0.193) to 143,542,473 bolívares, having amortized in this same period the difference, or 81,946,328 bolívares, and paid a large sum in interest. The total of 143,542,473 bolívares, representing the indebtedness in 1918, is divided as follows: Internal debt, 49,070,832 bolívares; foreign indebtedness, 94,471,641 bolívares.

The Bank of Venezuela calculates the AVAILABLE GOLD in the country on the 31st of December, 1918, at 62,528,056 bolívares as against 30,340,822 bolívares on December 31 of 1915, showing an increase of 32,187,234 bolívares in three years. This is a considerable increase, but as a matter of fact the amount of available gold is greater than the figures show, for lately foreign banks established in Caracas, and merchants have, from time to time, made heavy importations of gold from the United States of America. In July, for example, \$1,150,000 in coined gold was received at La Guaira consigned as follows: \$1,000,000 to the Caracas branch of the City National Bank of New York; \$100,000 to the Caracas branch of the Royal Bank of Canada; and \$50,000 for a commercial firm.

For the first six months of the present year THE NET PROFITS OF THE VENEZUELAN NAVIGATION CO. amounted to 554,532 bolívares, which were distributed according to the rules of the corporation as follows: Dividends (70 per cent), 387,473 bolívares; insurance fund (20 per cent), 110,706; reserve fund (5 per cent), 27,677; and guarantee fund (5 per cent), 27,677 bolívares.

Newspaper reports state that in Carúpano a number of merchants and business men have started a subscription to a COMMERCIAL BANK which is greatly needed in the commercial, agricultural, and local development of the eastern part of the Republic.

During the first six months of the present year the BANK OF VENEZUELA made a net profit of 1,595,014 bolívares, which, added to the surplus of the six months previous, gives a total of 2,204,300 bolívares distributed as follows: Reserve and guarantee funds, 551,075 bolívares; payments on the furnishings of the central and branch offices, 2,556 bolívares; payments on the bank building, 55,655 bolívares; dividends, 1,680,000 bolívares; leaving a surplus in the profit and loss account of 9,830 bolívares for the present six months period.

The net profits of THE WEAVING COMPANY OF CARACAS AND VALENCIA in the six months period from January to June of the present year amounted to 547,018 bolívares, distributed as follows: Reserve fund, 27,351 bolívares; 10 per cent dividend in July, 40,400 bolívares; six dividends of $1\frac{1}{4}$ per cent to be declared monthly during

the present year up to and including January, 1920, 303,000 bolívars; guarantee fund, 121,565 bolívars. The reserves at the disposal of the company are the following: Reserve fund, 201,214 bolívars; guarantee fund, 486,943 bolívars; profit and loss account, 343,400 bolívars, making a total of 1,031,557 bolívars.



INTERNATIONAL TREATIES

UNITED STATES AND FRANCE.

An arbitration convention between THE UNITED STATES AND FRANCE extending for another period of five years the arbitration convention of March 28, 1908, was signed on March 28th last.

UNITED STATES AND SPAIN.

An arbitration convention between THE UNITED STATES AND SPAIN, signed on March 8, 1919, extends for a period of five years the arbitration convention signed April 20, 1908. The convention was ratified by the President of the United States, July 29, 1919.

UNITED STATES AND URUGUAY.

On the 2d of August, 1919, ratifications were exchanged at Montevideo of the Commercial Travelers Convention with URUGUAY, signed at Washington, August 27, 1918. The convention was proclaimed August 11, 1919.

UNITED STATES AND THE NETHERLANDS.

An arbitration convention between THE UNITED STATES AND THE NETHERLANDS, extending for another period of five years the arbitration convention of May 2, 1908, was signed at Washington, March 8, 1919, and ratified by the President July 29, 1919. Ratifications were exchanged at Washington August 22, and proclaimed August 25, 1919.

UNITED STATES AND GUATEMALA.

On August 25, 1919, ratifications of the Commercial Travelers Convention between the UNITED STATES AND GUATEMALA, signed December 3, 1918, were exchanged. A note referring to certain terms of the Convention was published in the July number of the Bulletin. The Convention was proclaimed August 27, 1919.

UNITED STATES AND ITALY.

An arbitration convention between the UNITED STATES AND ITALY extending for another period of five years the arbitration convention of March 28, 1908, was signed at Washington March 20, 1919, and ratified by the President of the United States July 29, 1919.



LEGISLATION

CUBA.

On August 15 last the President of the Republic promulgated a law enacted by Congress amending the ORGANIC JUDICIAL LAW relating to municipal courts, assignment of judges of first instance, instruction and correctional, alternate municipal judges, appointments, promotions and term of service of officials of the judiciary, and inspection and vigilance concerning the administration of justice and with respect to lawyers and solicitors. In accordance with this law in order to practice law in the Republic of Cuba, one must be over 20 years of age and hold the degree of doctor or bachelor of laws or doctor of civil law conferred by the University of Habana, or an equivalent degree given by a foreign university recognized in Cuba under treaties or laws, and provided always that it has been revalidated by the University of Habana.

On August 8, the new ELECTORAL CODE went into effect, repealing the electoral law of September 11, 1908. This law makes all Cuban men over 21 years of age, listed in the electoral register, with the exception of inmates of asylums, persons legally declared incompetent, persons deprived of citizenship on account of crime, and members of the army and navy in active service, electors. The new code applies to electoral committees: There shall be a central electoral committee, provincial electoral committees, municipal electoral committees, and electoral executive boards, the first three named being permanent. The central electoral committee shall be composed of a member of the supreme court, a magistrate of the Audiencia of Habana, a professor of the law school of the University of Habana, and a political member chosen by each duly organized national party. The electoral executive boards shall be composed of a president, two members, and the political representatives of the accredited national parties.

The President of the Republic promulgated, on June 25, THE PENSION LAW FOR GOVERNMENT EMPLOYEES. Compensation will be paid to all employees of the Government physically or mentally incapacitated in line of duty, and may be paid to employees with 20 years' service and over 55 years of age if desired by them. The pension will consist of 3 per cent of the last annual salary paid to the employee, multiplied by the number of years of service to the employee's credit, providing that such sum does not exceed 75 per cent of his last salary. If the last salary has not been paid a full year the base of computation will be the salary of the year previous to the last one, providing also that the pension shall not exceed \$2,400 annually. In the case of physical or mental disability the employee shall have the right to a pension equivalent to 50 per cent of his salary, whatever his age, providing that the 3 per cent of the last salary multiplied by the years he has served does not equal half of his last salary.

HAITI.

The text of the NEW ELECTION LAW was published in extenso in the *Moniteur*, the official newspaper, under the date of August 27. This law, which grants suffrage right to every male Haitian of the full age of 21 years, provides for the establishment of several new constituencies. After the results of the census are known the number of representatives in the legislative assembly will be established on the basis of one member for 60,000 inhabitants; until then their number will be limited to 36.

MEXICO.

On the 30th of last August the President of the Republic made operative a LAW FOR THE REPARATION FOR DAMAGES CAUSED BY THE REVOLUTION. This law supersedes that of November 24, 1917. In accordance with its provisions a commission will be established in the city of Mexico under the jurisdiction of the department of the treasury to investigate the claims for damages both personal and property, caused by the revolution which took place November 20, 1910. The law provides for the consideration of claims based on damages caused as follows:

(1) By the revolutionary forces, or those recognized as such by the government established at the close of the revolution.

(2) By the forces of the same government in the exercise of their duties during the struggle against the rebels.

(3) By the forces under the old federal army until its dissolution.

(4) By outlaws, providing it may be proved that the damage was done as a consequence of the failure of the lawful authorities to afford proper protection.

No indemnity will be allowed in the cases referred to in No. 4 if the damaged person or persons shall have voluntarily given aid or recognition of authority to the rebels, or have shown any desire to aid them against their legal protectors, nor to those who were the authors or accomplices in the crimes against the constitutional government which resulted from the constitutional revolution, and also all those who were well-known enemies of the revolutions of 1910 and 1913 and of the new constitutional government.

As soon as the claims, and proofs accompanying them, shall have been received, the commission will render an opinion as to the award to be made and concerning which the interested parties will be notified so that they may state their acceptance of, or opposition to, such decisions. In the case of claims of foreigners who fail to accept the proposed award, the matter shall be brought to the attention of the President of the Republic for his final decision. The fact of appealing to the commission will act as waiver of all right to bring action through the courts. Foreign claimants who object to the decisions of the commission may present their objections directly to the commission or through diplomatic channels. These objections will then be submitted to the consideration of a commission of arbitration composed of three members, one of whom shall be appointed by the President of the Republic, another by the Diplomatic agent of the country to which the claimant belongs, and a third who shall be chosen by the first two. In the event of failure to agree upon the third member, the President of the Republic is authorized to appoint a citizen from a third nation. No diplomatic or consular agent shall be chosen as one of the arbitrators. The arbitration commission shall have exclusive charge of such cases as they have been appointed to consider, excepting when the President shall have entered into international agreements for the creation of mixed permanent commissions for the investigating of all of the claims of claimants of one and the same country.

The arbitration commissions shall reach their decisions through a majority of votes.

The right to bring actions for claims of damages caused by the revolution of November 20, 1910, up to the date of the law, shall become void after the 1st of September, 1920, and a claim for any subsequent damage must be filed within a year of the occurrence. The form and conditions of such indemnities as may be agreed upon shall be determined by a special law.



PUBLIC INSTRUCTION AND EDUCATION

ARGENTINA.

The national council of education has authorized a trial course in **HYGIENE TO BE TAUGHT** in three of the schools of Buenos Aires, as proposed by Dr. Jose F. Montellano. The system to be employed will confine the study of hygiene to fundamental conclusions of practical utility that have been established as truths, and will supply them in objective form. The purpose in view is to give to the student sufficient practical knowledge to protect his health, in such form that he will have a clear idea of the subject which he will retain throughout his life. Dr. Montellano has already prepared his first pictures which will contain microscopic exhibitions of the red and white blood corpuscles, the entrance of micro-organisms and the attack, destruction, and elimination of the same by the phagocyte. Under each section will be a description of its contents, the subject ending with the lesson that alcoholism and a disordered life destroy the function of the phagocytes. In like manner by depicting the processes of the most terrible diseases, and adequate methods of prophylaxis, it is hoped not only to accomplish the purpose of the course of study, but to furnish the teacher with a guide as to what may best be included in such elemental instruction.

The department of general inspection of the provinces has appropriated the necessary funds to open 60 new **SCHOOLS** in different parts of the country. It is hoped that the number may soon be raised to 100. The new schools will be apportioned in the following manner: 4 at Entre Rios; 30 at Cordoba; 6 at Santiago del Estero; 17 at La Rioja; 1 at San Juan; and 2 at Catamarca.

BRAZIL.

The message read to the legislature of the State of São Paulo by President Arantes on July 14 gives the following notes on **PUBLIC INSTRUCTION IN THE STATE OF SÃO PAULO**: In 1918 there were 480,164 children from 7 to 12 years of age. The total number of students entering State, city, and private schools was 253,406, of whom 232,621 were in the primary courses. In the State there were 176 school groups, of which 30 were in the capital and 146 in the interior. There were 835 students admitted to the *gimnasios* Campinas and Ribeirão Preto of the capital of whom 63 finished the course. In the State during the year 11 normal schools with 3,423 pupils (999 boys and 2,424 girls) were opened. The number of graduates

was 856. The enrollment of the course in medicine and surgery was 234, of whom 27 graduated as doctors. The enrollment of the polytechnic school was 185, of whom 18 graduated as civil engineers and 6 as mechanical and electrical engineers.

The message of President Veiga, delivered August 1, to the legislature of the State of Rio de Janeiro, contained the following data in regard to PUBLIC INSTRUCTION in that State: There are 441 schools in the State, of which 292 are rural and 149 city schools. There are 42 school groups having a complementary school in the capital and a model school in Campos. The enrollment of the separate schools for the present year is 20,655 students. The President of the State has announced his intention of shortly inaugurating two professional schools in the capital—one for boys, to teach gardening and horticulture; and one for girls, with a general domestic science course. Two schools of this kind for girls are also to be established in the cities of Campos and Petropolis.

COLOMBIA.

Acting on the instructions of his government, the Colombian minister to the Republic of Argentina has engaged the services of AN ARGENTINE AGRICULTURAL PROFESSOR to hold a chair in the Superior School of Agriculture of Bogota. The classes in rural economics, farm bookkeeping, and agricultural science and chemistry will be under the direction of the new professor.

Data on the NUMBER OF STUDENTS, taken from the President's message of the latter part of July, show an enrollment for the school year as follows: Public primary instruction, 306,106 students; private primary instruction, 9,175 students; public secondary and professional instruction, 12,116; private secondary and professional instruction, 20,999; public art and industrial instruction, 2,407; private art and industrial instruction, 4,995; totaling a number of 355,798 students.

Dr. Antonio Jose Uribe was recently appointed by presidential decree DEAN OF THE SCHOOL OF LAW AND POLITICAL SCIENCE in the national university.

DOMINICAN REPUBLIC.

In 1918 public instruction showed the greatest development recorded in the country since the national bureau of statistics was opened. The number of students enrolled in all the schools was 51,585, of which 64.40 per cent, or 33,122, were in average daily attendance. During the year 777 SCHOOLS were open and were provided with 1,209 teachers. The classification of the schools is as follows: Superior schools, 2; superior and primary schools, 6; primary schools, 769. Beside these elementary schools there is the UNIVERSITY OF SANTO DOMINGO, with a faculty of 28 professors,

9 doctors of law, 7 of medicine and surgery, 4 of pharmacy, 4 of dentistry, and 4 of mathematics. The students enrolled in the college numbered 121, assigned to courses in the following proportion: Law course, 30; notarial course, 9; medicine, 43; mathematics, 10; pharmacy, 12; school of dentistry, 17. The provinces having the greatest number of schools are: Santiago, 112 schools, 7,273 pupils, and 174 teachers; Santo Domingo, 107 schools, 10,112 pupils, and 292 teachers; Seybo, 107 schools, 2,040 pupils, and 63 teachers; and La Vega, 88 schools, 7,540 pupils, and 133 teachers.

ECUADOR.

Under the name of SOCIETY OF COMMERCIAL STUDIES there has just been organized in Guayaquil a society whose principal object is to contribute to the development and extension of commercial studies in Ecuador, either by lectures, publications, or in any other manner that may be deemed expedient and which are in accordance with the law. Encouragement is to be given at the same time by means of rewards and prizes to all persons who, by their works and study, collaborate in the attainment of the ends proposed by the society. The by-laws were approved by the President of the Republic on July 2 last.

The following data on PUBLIC INSTRUCTION during the fiscal year just terminated were taken from a report which the Secretary of Public Instruction has just submitted to the Government. Since 1916 the schools have increased to the number of 230. Normal instruction in the Juan Montalvo and Manuela Cañizares institutes in Quito, and the Rita Lecumberry institute in Guayaquil has continued uninterrupted. Technical instruction, especially that given in the School of Arts and Crafts of Quito, has been extended and improved. The University of Quito proposes to adopt university extension work in the near future, especially in the sciences. The reopening of the school of philosophy and letters of this university has been ordered by the board.

There are now in operation in the Republic 1,630 primary schools, 1,327 fiscal schools, 168 municipal schools, and 135 private schools. In 1914 there were only 1,400 schools in Ecuador. The number of matriculates in the 1,630 schools referred to was 99,254, of whom 70,608 belonged to the fiscal schools, 14,670 to the municipal schools, and 13,976 to private schools. The percentage of attendance was 85.65. These schools have 2,317 teachers, 162 of whom are graduates from normal schools, 1,154 have other diplomas and certificates, and 1,001 have no certificates. The appropriation in 1918 for primary instruction was 1,300,000 sucres (sucre=\$0.4867), and in 1919 to 1,294,000 sucres.

There are 18 COLLEGES in operation in the Republic, 14 of which are national and 4 private. All the Provinces, with the

exception of Esmeraldas, have schools of secondary instruction. In 1919 the 18 colleges had 2,026 registered pupils, 1,674 of whom were in national colleges and 352 in private colleges. In 1914 the matriculates at these colleges numbered 1,840; in 1915, 1,778; and in 1916, 1,747. In 1917 the matriculates in the national colleges numbered 1,474, and in 1918, 1,540.

According to the President's message the total expenditures for account of INSTRUCTION in 1918 were 2,491,940 sucres.

GUATEMALA.

A CONSERVATORY OF MUSIC has been created in the capital of Guatemala by a decree issued on the 20th of last July, for the benefit of the capital's military band. Classes of music, theory, harmony, etc., will be held daily in accordance with the conservatory regulations.

Lieut. Jacinto Rodríguez Díaz, a graduate of the Guatemalan Military Academy, has been appointed by the national government to make a special study of AVIATION in the United States of America.

University students of Guatemala have lately established a UNIVERSITY CENTER for the purpose of maintaining solidarity among its membership, increasing social and athletic events, and promoting a closer relationship with similar institutions throughout America.

HAITI.

Under a law promulgated on August 19, 1919, PRIMARY INSTRUCTION in Haiti is hereafter divided into two sections—one to be known as Enseignement primaire élémentaire and the other as Enseignement primaire supérieur. The higher course will extend over a period varying from two to four years and will include among other matters modern languages, algebra, industrial arts, business sciences such as stenography, accounting, etc., and practical agriculture. The elementary course will cover six years. Both are open to boys and girls.

SALVADOR.

The national assembly voted the sum of 20,000 pesos to cover the costs of the CAMPAIGN AGAINST ILLITERACY during the fiscal year 1919-20. To this end a national committee to combat illiteracy was formed as part of the department of public instruction. The committee is composed of the director general of primary public instruction, the director of the national institute, the director of the Boys' Normal School, the director of the Pestalozzi School of San Salvador, and the inspector of public instruction. This committee, which began its labors on the last of August, is to make recommendations at as early a date as possible, to the department of public instruction for means to end illiteracy in the country.

GENERAL NOTES

ARGENTINA.

On the 19th of July the Forty-ninth ANNIVERSARY OF THE FOUNDING OF THE MILITARY COLLEGE, the faculty and corps of cadets went to Buenos Aires to pay homage to the memory of Sarmiento, founder of the school, whose statue they visited. The Military College of Argentina was created during the administration of that illustrious statesman, by authority of a decree of the 11th of October, 1869. On the 22nd of June, 1870, the decree that organized the institution was promulgated and on the 19th of July of the same year, the decree calling for the opening of a course of studies was published.

On the 18th of July, in Buenos Aires, the closing session of the FIRST NATIONAL CHEMICAL CONGRESS took place. There were 158 subjects under consideration during the 16 sessions of the congress. The second chemical congress will meet in La Plata, in 1922. Definite plans have been made for the organization of the AMERICAN ACADEMY OF HISTORY which was recently created by the assembly in Buenos Aires of delegates from scientific institutions of the continent. The Academy will be located in Buenos Aires and will publish American biographies, histories, and works on archeology, as well as a general history and a bibliographical dictionary. Every two years a prize will be awarded for the best American work.

BRAZIL.

According to statistics from the bureau of population, during the month of June the FIGURES ON IMMIGRATION were 1,360 persons, of the following nationalities: 1 American, 8 Argentinians, 1 Austrian, 51 Brazilians, 3 Belgians, 1 Chilean, 1 Columbian, 5 Danes, 37 French, 1 German, 7 Greeks, 176 Spaniards, 2 Dutch, 54 Italians, 27 English, 94 Japanese, 1 Norwegian, 849 Portuguese, 3 Peruvians, 3 Poles, 22 Russians, 4 Swiss, 3 Turks, 6 Uruguayans. The total number of immigrants entering during the first six months of 1919 was 5,688, the Portuguese, Spanish, Italian, and French predominating.

The Interurban Telephone Co. of Brazil has sought permission from the department of communications to TRANSFER THREE TELEPHONE CONCESSIONS to the São Paulo Telephone Co., of Toronto, Canada. The concessions are: A contract to lay a cable

from Rio to Nictheroy; the contract to construct telephone lines between Entre Ríos and Sapucaja, Penha Longa, Borto Novo, and Carmo; and the contract to join its telephone lines within the limits of the States of Rio and São Paulo and the Federal district.

With the sanction of the government the Compagnie des Cables Sud-Américains will move the anchorage of its cables from Recife to Rio de Janeiro.

CHILE.

The Valparaíso newspaper men who for some time past have been earnestly trying to found a NATIONAL ASSOCIATION OF NEWSPAPER MEN have just established an organization with which to carry on an active campaign to this end, and to endeavor to persuade all the editors of newspapers and magazines of the country at the national convention of the Chilean press which will be held on the 13th of February, 1920, to assist in officially drawing up a constitution for such an association and having it published. One of the principal purposes of the club of Valparaíso newspaper men is to unite in one great association all of the Chilean and foreign representatives of the press residing in the country. The convention will meet in whatever city the majority select.

In accordance with an agreement of the organization committee of congress and the governing board of the MEDICAL SOCIETY OF CHILE, the date for the meeting of the second Chilean medical congress has been postponed until the 10th of September, 1920, in order that those who are engaged in preparing important papers may have sufficient time to finish their respective works.

On the 5th of last September the MEDICAL SOCIETY OF CHILE celebrated the fiftieth anniversary of its foundation. A great reception was held in the hall of honor of the University of Santiago, which was attended by many distinguished members of the medical profession of the capital. This association was founded September 5, 1869, by the medical students with the cooperation of the professors and the most distinguished physicians of that time and it is now the oldest of the scientific societies of the country and one which has been instrumental in raising Chile to the important position which it now holds in the field of American medical science.

In the early part of last September the METEOROLOGICAL STATION at Temuco was officially opened. It will have charge of the meteorological service, which is so very important for agriculturists.

A PROHIBITION LEAGUE against alcoholic beverages was established at Chellan early last September, the rules, regulations, and purposes of which are identical with the one organized some time ago at the capital of the Republic.

The commission for the taking of the NEW CENSUS OF THE REPUBLIC, which will be started in November, has already been appointed.

The following NATIONAL CONGRESSES were held during the month of September of the current year: The first congress of Primary education, the first congress of inspection of milk, and the ninth general scientific congress.

COLOMBIA.

According to newspaper notices the CENSUS OF THE POPULATION of the departments of Antioquia, Bolivar, and El Valle in 1918 was as follows: Antioquia, 817,530 inhabitants, of whom 79,146 were residents of the municipality of Medellin; Bolivar, 456,212 inhabitants, of whom 51,382 represent the population of Cartegena; El Valle, 271,630 inhabitants. Antioquia has increased by 76,593 inhabitants, and Bolivar, 40,783, in the last six years.

A law passed by congress on the 7th of August provides for the erection of a MONUMENT TO THE BRITISH LEGION, on which the principal relief figures or busts will be those of Col. James Rook, commander of the legion, and Gen. Daniel F. O'Leary, aide de camp of the Liberator.

In Cali a committee has been formed to make plans for the erection of a MONUMENT TO JORGE ISAACS, famous Colombian poet and writer, author of "Maria," the well-known Colombian novel.

VITAL STATISTICS of the city of Barranquilla for the first six months of present year show a total of 920 births and 632 deaths, or an increase of 288 in the population.

The South and Central American Telegraph Co. (Ltd.), of New York, has made a contract with the ministry of the government to establish, maintain, and operate a CABLE SERVICE between Cartegena and other seaports of the Atlantic coast, and connect them with the "All American system" of cables, and also with the cable system of Venezuela, if satisfactory to that government.

A Barranquilla paper states that, thanks to the interest of a Mexican engineer who resides in that city, the people of the United States will see on exhibition in the Field Museum of Natural History in Chicago, various archeological treasures of Colombia and relics of a civilization that was passing when the historic caravels of Columbus anchored in Guanahany. The engineer presented these to a Chicago millionaire, who in turn presented them to the Field Museum. They constitute a fine COLLECTION OF GOLD RELICS OF THE COLOMBIAN INDIANS, and are extremely valuable as examples of the prehistoric art of Colombia. The ornaments consist of gold vestures with accessories for gala occasions, gorgets, cuirasses, head-

bands, strings of bells, insignia, etc., all of finely wrought gold, the work of Indian goldsmiths. The relics were found in a sarcophagus discovered by explorers in the township of Ayapel of the department of Bolivar.

Dr. Dionisio Arango was appointed by presidential decree of August 13, GENERAL PROCURATOR OF THE REPUBLIC.

TWO NATIONAL CONGRESSES have recently met in Colombia. The First National Judicial Congress met in Bogota, August 10, with Dr. Antonio José Uribe, honorary president of the Colombian Academy of Jurisprudence, presiding; the Fourth National Medical Congress met at Tunja for the centennial celebration on August 8.

CUBA.

By presidential decree of August 2, a concession was given to Señor Carlos I. Párraga to establish a PUBLIC TELEGRAPH AND TELEPHONE SERVICE by means of cable communication between the Republic of Cuba, the American Continent, and the other Antilles. Before commencing operations the concessionaire must determine the points where he will join his cables and establish his land terminals, and must engage to maintain during the term of the concession (unlimited but not a monopoly) the service in satisfactory operation. The cable to be laid between the Province of Habana and the United States must be in working order within two years. The other cables the concessionaire may establish by the same time or at a later date.

A stock company, known as THE TEATRO DE LA COMEDIA, with a capital of \$100,000, has been organized in Habana to construct a theatre, or buy or rent land for the construction of moving-picture theatres, in the capital and other cities of the Republic.

On the 7th of August AN EQUESTRIAN STATUE of Gen. Alejandro Rodriguez was unveiled.

On the 10th of October, anniversary of the Grito de Yara, a handsome MONUMENT TO DOMINGO MUJICA, first martyr of the war for Cuban independence, will be unveiled in Jovellanos. Mujica was shot by order of Gen. Martínez Campos, August 20, 1895, in the Castillo de San Severino, Matanzas.

Under the name "CUBAN AMERICAN AIRCRAFT CORPORATION" a company has been formed in Habana to take up all business connected with aviation. It will establish a school for aviators in the Republic, and organize a mail and passenger service between the United States and Cuba, and between Habana and the principal Cuban cities. The company will also take up the venture of advertising by airplane, and the buying and selling of apparatus and material for aviation.

DOMINICAN REPUBLIC.

A commission of engineers has been appointed to supervise the construction of the ACQUEDUCT OF SANTO DOMINGO. The cost of the undertaking will be, according to estimate, \$1,036,595, gold. It is the most important public work yet undertaken in Santo Domingo.

On the 16th of August the fourth reunion of the MUNICIPAL CONGRESS OF CIBAO took place in the city of Santiago de los Caballeros.

ECUADOR.

The ARMY of Ecuador is composed of the following units: Three regiments of artillery, 2 regiments of sappers, 10 battalions of infantry, and 3 squadrons of cavalry.

The Government of Colombia has accepted the proposal of the Government of Ecuador concerning the erection of a MONUMENT commemorative of the boundary treaty recently concluded between the two countries.

On August 10 last a municipal meteorological OBSERVATORY was inaugurated in Richacha.

The NATIONAL CONGRESS, in compliance with the requirements of the constitution, met in regular session in Quito on August 10, 1919. Burbano Aguirre was chosen president of the senate and Dr. Pacifico Villagomez speaker of the house of deputies.

The municipality of Guayaquil recently awarded Dr. Michael E. Connor, a United States hygiene expert, a GOLD MEDAL in acknowledgment of his services in connection with the sanitation of Guayaquil in cooperation with the Rockefeller Foundation. This foundation is also cooperating with Ecuador in a campaign against hookworm. The association of agriculturists of Ecuador have contributed 40,000 sucres to be expended for this purpose. Dr. Connor, under the direction of the bureau of sanitation, is in charge of the work.

A committee has been appointed to report on a MAP of Ecuador submitted to the Government for the use of schools.

The President has authorized the issue of 4,000,000 POSTAGE STAMPS commemorative of the first centenary of the independence of Guayaquil. The 1-sucra stamps bear the bust of Simon Bolivar, the Liberator.

The 7th NATIONAL EXPOSITION OF FINE ARTS was opened in the Alameda in Quito on August 12 last, the President of the Republic, his cabinet, and other distinguished officials taking part in the opening ceremonies.

GUATEMALA.

The President, by decree No. 750, issued on the 1st of August of the present year, called a special session of the national legislative assembly for the purpose of studying the TREATY OF PEACE entered into at Versailles by the Allied Nations, among which is the Republic of Guatemala, and also to discuss other matters of importance. The first of these sessions was held August 12 last.

On the 21st of August of this year the MATERNITY HOSPITAL "JOAQUINA" in the city of Guatemala was reopened. This building had to be reconstructed on account of the great damage done by the earthquake which occurred two years ago. This is now one of the most attractive institutions to be found in the capital and one of the most useful in the country. During the eight years since its establishment assistance has been rendered to 3,361 women and 2,559 children.

Among the patriotic festivities which took place in the city of Guatemala on the 30th of June last, in commemoration of the anniversary of the victory of the liberal armies in the hills of San Lucas, in the year 1871, special mention should be made of the opening of the reconstructed MILITARY ACADEMY. The building was destroyed by the earthquakes of 1917-18 and has been restored to its previous architectural form with the exception of the front overlooking the west and the boulevard. The President of the Republic conducted the ceremonies and reviewed the historical past of the institution. Immediately following this the President assisted at the unveiling of the statue of Gen. García Granados, a former statue having also been destroyed by earthquake.

On the same day several MUNICIPAL WORKS which the municipality of Guatemala had recently completed were opened to the public. These were the municipal market of the southern section, the municipal crematory, and the municipal reservoir of El Calvario.

HAITI.

Since the beginning of the current year several PUBLIC BUILDINGS in the national capital have been repaired and enlarged. Among them are the ministry building, the National School of Medicine, the government warehouses, etc.

A new HAITIAN CONSULATE has been established in Antilla, Cuba, in order to facilitate the increasing economic relations between the two countries. M. Elie Lescot is the first incumbent of this post.

On September 10 the members of the lawyers' association of Port au Prince elected a new council. The councillors for 1919-20 are M. Emile Deslandes, who was reelected bâtonnier, and MM. F. Soray, secretary, V. Gervais, Rampy, Gélín, Alfred, Dominique, L. Joseph, Cantave, and Raymond.

Results of the GENERAL CENSUS taken in the Republic, between September, 1918, and August, 1919, show a total population of 1,631,-250. However, according to a statement made public by the authorities, this figure should not be taken as accurate, as it appears that for various reasons thousands of people were not included in the returns.

MEXICO.

The second ordinary period of the SESSIONS OF THE TWENTY-SIXTH CONGRESS were opened with the usual ceremonies in the city of Mexico on the first of last September, and on the same day the President's message was read. He gave an account of all of the acts of his administration during the year ended, as well as of the economic, military, and political situation of the country. The following data are taken from this document:

Statistics relating to EMIGRATION AND IMMIGRATION from September, 1918, to June, 1919, indicate a total of 47,978 emigrants, as against 60,068 immigrants, a showing of 12,050 in favor of an increase in population.

During this period the construction of three CATHOLIC CHURCHES and the opening of three PROTESTANT CHURCHES was authorized.

In order to show the moral as well as the material condition of the Mexican people, and to call the attention of business men and investors of foreign countries to Mexico, MOVING PICTURES have been taken of the centers of production, as well as of the principal cities, public events, and all other things which might show the true development of the country and its natural resources. In order to secure and distribute these abroad through delegations and consulates of Mexico, there has been established in the capital a moving-picture studio, which has already secured 80,000 meters of films.

For the purpose of cultivating and promoting DIPLOMATIC RELATIONS with all friendly nations, the Mexican Government authorized and sent 10 special missions last year, besides the 13 which had formerly been dispatched; and all friendly governments in their turn, have established their respective missions in the capital of the Republic. The number of foreign consular agents assigned to different cities of the Republic is 88.

During the period from September, 1918, to August, 1919, the number of NATURALIZED FOREIGNERS was 70, and 55 certificates of Mexican nationality were issued. In accordance with article 33 of the constitution, during the year referred to there were deported from the country 67 foreigners of different nationalities. The department of state legalized 4,856 documents.

There have been granted 1,656 PERMITS TO FOREIGNERS TO ACQUIRE REAL ESTATE in the Republic in accordance with article 27 of the constitution. Of these 127 were issued to Germans, 93 to Italians, 83 to English, 59 to Turks, and the rest to citizens of other nationalities.

The medical department connected with the railways is at present composed of 17 RAILROAD HOSPITALS established at the principal points of the systems, all of which are well equipped with the latest and most essential medical requirements. From the period comprising September, 1918, to August, 1919, 2,217 regular employees and 49,835 outsiders received medical attention.

The post office department has established two NEW POSTAL SERVICES—that of special press matter and immediate delivery, which have met with general approval from both business men and the general public.

The POSTAL SYSTEM, which had been extended to 45,605 kilometers last year, has been increased 3,902 kilometers, and there are now 2,463 post offices in the Republic.

The means for TELEGRAPHIC COMMUNICATION improved remarkably throughout the country during the year. Fifteen new telegraph offices were opened to the public and the number of telegraph messages received and sent totaled 12,102,286. There were constructed 1,879 kilometers of new lines; 77,398 kilometers of lines were repaired, and 4,753 other damages corrected. At present the total extent of the telegraph system of the Republic measures 87,117 kilometers.

Seventy-six permits for the CONSTRUCTION OF PRIVATE TELEPHONE LINES were issued.

THE NATIONAL MERCHANT MARINE is composed of vessels having a total of 40,257 tons. Recently one schooner and a pilot motor boat which had been constructed in the country were launched. The vessels engaged in river navigation represent a total tonnage of 366,726.

NICARAGUA.

The director general of telephone and telegraph lines has ordered the construction of a TELEPHONE AND TELEGRAPH LINE from Managua to Matagalpa via Boaco.

Senior don Jesús Ulloa has been appointed MINISTER FROM HONDURAS TO NICARAGUA—He has occupied several posts in his government and has been the representative of Honduras in Guatemala and the United States.

The 19th of July was declared a NATIONAL HOLIDAY by presidential decree in order to celebrate the signing of the treaty of peace.

By order of the department of public works work has been begun on the CONSTRUCTION OF A PARK near the Laguna de Asososca, in the outskirts of Managua. The site chosen is very picturesque—250 feet above the level of the lake; from its crest can be seen the Xolotlán as well as the capital and the rich coffee plantations lying in the neighboring districts. There will be a children's playground fitted out with various gymnastic appliances and a "chute" down into the lake.

In order to improve and reduce the expense of communication between the departments not connected by railroad, where the mail service is slow, the directorate general of the telephone and telegraph lines has decided to establish a NIGHT LETTER TELEGRAPH SERVICE in the offices of the following departments that have night service: Bluefields, Chontales, Matagalpa, Jinotega, Esteli, and Nueva Segovia. The night letters may have 40 or more words, and will be sent at the following rate; First 40 words, 20 centavos; each additional 10 words, 5 centavos extra.

PERU.

The latter part of August the QUARANTINE STATION OF SAN LORENZO was officially opened for the segregation of first and second class passengers arriving at the port suffering from contagious diseases.

Executive decree of August 26 defined MILITARY REGION NO. 4 on the southeast frontier. The head of the new army district will be the city of Cuzco, and the departments of Puno, Cuzco, Apurimac and Madre de Dios will be under its jurisdiction. The object of the government is to complete the military organization of the Republic for the proper application of obligatory service in times of peace, and to facilitate the mobilization and concentration of troops in times of war.

On the 12th of August the President of the Republic organized his CABINET as follows: President of the council of ministers and minister of foreign relations, Dr. Melitón F. Porras; minister of the government and police, Dr. Alejandrino Maguiña; minister of justice and public instruction, Dr. Arturo Osoreo; minister of the treasury, don Fernando Fuchs; minister of war and navy, Gen. J. Ramónizarro; minister of industry, Dr. Matías León.

The President, in reorganizing the national navy to make it entirely independent of the army, has created a bureau of the department to be known as the GENERAL BUREAU OF THE NAVY, which will include: (a) the fleet, the river patrol fleet and the branches connected therewith; (b) the general secretarial department of the navy; (c) the technical department of the navy; and (d) five departments—i. e., personnel, material, administration, sanitation, captainties.

SALVADOR.

Under orders from the superior council of health the work of SANITATION IN SAN SALVADOR has been begun. Ten doctors and a number of assistants under the direction of the sanitary police have been placed at the disposal of Dr. Charles Bailey, chief of the office of uncinariasis, who is anxious to have the sanitation of the capital perfect.

At the request of the medical students the President has appointed Dr. Rafael Castro DIRECTOR OF THE ROSALES HOSPITAL, the first charity hospital in the country. The new director will immediately have isolation wards built for patients with contagious diseases.

The superior health council has begun plans for the construction of a QUARANTINE STATION on one of the islands in the Gulf of Fonseca, to prevent the entrance of contagious diseases into the country. The superior council of health is acting in conjunction with the superior council of health of Honduras through its accredited representative. The cost of the station will be borne by both governments, and it is possible that Nicaragua may be asked to share the benefits and up-keep of the same station.

A NEW MONTHLY MAGAZINE known as "El Trabajo" (Work) and published by the Confederation of Laborers of El Salvador, has made its appearance in San Salvador.

The national library of San Salvador has decided to issue a publication to be known as the "BULLETIN OF THE NATIONAL LIBRARY" which will appear at the end of each month, show the number of readers and other statistics and matters related to the institution.

The Argentine consul general in Salvador has presented the national library of San Salvador with a COLLECTION OF WORKS BY ARGENTINE AUTHORS. The director of the library by means of this gift will have the nucleus for a section devoted to South American authors.

URUGUAY.

On August 5 the new Minister of foreign relations, Senor Dr. Gabriel Terra, took the oath of office before the President. Afterward Dr. Terra received in special audience the diplomatic corps of Montevideo.

STATISTICS REGARDING THE POPULATION of Montevideo in the month of March, published by the Monthly Bulletin of the Municipal Statistics Bureau of that city, show that there were 35,837 new arrivals in the city and 39,737 departures; that the number of births was 849, and deaths, 549; and 209 marriages were performed, being 29 more than in the same month of the previous year.

VENEZUELA.

On the 5th of August the President nominated Dr. J. A. Taglioferro **DIRECTOR GENERAL OF THE CENSUS**. The office charged with the taking of the national census was created by the law of June 27, 1919. The new census will be taken on the first, second, and third days of next January.

Gen. J. V. Gómez, President elect of the Republic, has presented to the Bolivian museum at Caracas a **VALUABLE HISTORICAL RELIC** consisting of a field-glass once the property of Simon Bolívar, the Liberator, which was given to him on his birthday.

Dr. Esteban Gil Borges, minister of foreign relations of Venezuela, has lately published in Caracas **FOUR ESSAYS ON HISTORIC PHILOSOPHY** entitled "La vida del Derecho—Sus Formas Primativas." The essays cover the primitive forms of law, its symbolic expressions, its idealization, sacred law, the fables and their historical function in the development of law, and the intimate relation between the evolution of law and the evolution of language.

The Scientific Students' Club of Caracas has instituted a clinic for charity patients and dedicated it to the memory of **DR. JOSE GREGORIO HERNANDEZ**, the well-known physician who lately died. The clinic will be a part of the "Amparo Infantil," the institution which relieves poor, sick, and illiterate minors and young people.

A **NEW MONTHLY MAGAZINE** known as "Ariel" has made its appearance in Caracas under the direction of Agustín Aveledo Urbaneja.

The national government has sent three wireless operators to the United States to complete their training and learn the most advanced methods in **WIRELESS OPERATION** in order to bring the new system back to their own country. The three young men are Antonio E. Toro Key, J. R. Delgado, and Louis Jiménez.



SUBJECT MATTER OF CONSULAR REPORTS

REPORTS RECEIVED TO AUGUST 21, 1919.

Title.	Date.	Author.
ARGENTINA.		
Rejection by senate of cereal convention with Allies.....	1919. Apr. 14	W. Henry Robertson, consul general at Buenos Aires.
Monthly report for March.....	Apr. 15	Do.
Boletin No. 179, Argentine foreign commerce, first nine months of 1918.....	Apr. 30	Do.
Exhibition of British jewelry, silverware, etc., in Buenos Aires..	May 14	Do.
Export taxes for May 1919.....	May 15	Do.
The Argentine insurance year, 1918.....	do.	Do.
Monthly report for April, 1919.....	May 20	Do.
Exports of mica.....	May 21	Do.
Restricted importation into Argentina of opium, cocaine, morphine, and Indian hemp.....	do.	Do.
Financial report of the Compañia Italo-Argentina de Electricidad for 1918.....	May 26	Do.
Message of President to the fifty-eighth session of Congress, May 16, 1919.....	do.	Do.
Personnel of meat-packing establishments.....	May 27	Do.
Opening of branch of Royal Bank of Canada in Buenos Aires.....	do.	Do.
South American exports of frozen and chilled meats for April, 1919.....	May 28	Do.
Message and project of law relative to conciliation and arbitration in labor troubles.....	do.	Do.
Press Association of Buenos Aires.....	May 29	Do.
Weekly Bulletin of Buenos Aires prices current.....	May 30	Do.
Limited Liability Co. in Argentina.....	June 2	Do.
Message of President to Congress proposing a law relative to collective labor contracts.....	June 3	Do.
Investments in Argentina.....	June 6	Do.
Report on hoisting machinery in Argentina.....	June 11	Do.
Annual National Dairy and Farm Show and Child Welfare Exposition to be held October, 1919.....	July 19	Do.
BOLIVIA.		
Motion pictures in Bolivia.....	June 12	Ross Hazeltine, consul at La Paz.
The value of advertising in Bolivia.....	June 20	Do.
BRAZIL.		
Brazilian cigarettes in Europe.....	Apr. 15	A. I. Hasskarl, vice consul at Rio de Janeiro.
Incorrect commercial methods.....	Apr. 23	Chas. L. Hoover, consul at São Paulo.
Prices of foodstuffs in the Federal district.....	Apr. 24	A. I. Hasskarl.
Market for telephone equipment.....	Apr. 30	Samuel T. Lee, consul at Porto Alegre.
Market for sawmill machinery in southern Brazil.....	do.	Do.
Exportation of frozen meats for Santos for 1918.....	May 5	A. I. Hasskarl, vice consul at Rio de Janeiro.
Statistics regarding deaths in Bahia.....	do.	Edward Higgins, consul at Bahia.
Automobiles, motor trucks, tractors, and accessories.....	do.	Do.
A new hotel in Rio de Janeiro, "The Palace".....	May 7	A. I. Hasskarl.
British bank to establish branches in Rio Grande do Sul.....	May 9	Do.
Brazil notes—Aerial transportation—Manganese contract.....	May 10	Do.
Authorization of Yokohama Specie Bank in Rio de Janeiro.....	May 18	Do.
Exports of Brazilian products for three months of 1919.....	May 20	Do.
American shipping in Rio de Janeiro.....	May 23	Do.
Weekly Bulletin No. 1, American Chamber of Commerce for Brazil.....	May 24	Do.
Market for fireworks.....	May 29	A. T. Haeberle, consul at Pernambuco.
Exports of rubber during May, 1919.....	June 17	Geo. H. Pickerell, consul at Para.
Review of Brazilian trade during first four months of 1919.....	June 20	A. I. Hasskarl.
Colonization in Brazil.....	June 27	Do.
Brazilian Government encourages agriculturists and stock breeders.....	do.	Do.
Brazilian cattle industry.....	June 30	Do.
CHILE.		
Chilian nitrate movement for April, 1919.....	May 8	Arnold A. McKay, consul at Antofagasta.
Docking and terminal facilities on west coast.....	May —	Do.
Tobacco and cigarette industry in Chile.....	May 28	Thomas W. Voetter, consul at Valparaiso.
Exports from the port of Antofagasta during May.....	June 5	Arnold A. McKay.
Nitrate production for May, 1919.....	June 7	Do.
New steamship service between Chile and Italy.....	June 9	Thomas W. Voetter.
Disposition of manifests of cargo of vessels calling at Chilean ports.....	June 11	Do.
Cost of general provisions in Chilean nitrate region.....	June 26	Arnold A. McKay.

Reports received to August 21, 1919—Continued.

Title.	Date.	Author.
COLOMBIA.		
Market for bicycles.....	1919, May 26	Claude E. Guyant, consul at Barranquilla.
Proposed new railroad between Ibaguë and Ambalema.....	May 31	Do.
Monthly report for April, 1919.....	do.....	F. J. Fletcher, vice consul at Cartagena.
Organization of Colombian company to further project for opening mouth of the Magdalena River.	June 5	Claude E. Guyant.
Market for cotton bags.....	do.....	Do.
Coal mines in Department of Bolívar.....	June 26	F. J. Fletcher.
Market for preserves, jams, and jellies.....	June 30	Do.
Opportunities for American motion-picture films in consular district of Cartagena.	July 3	Do.
COSTA RICA.		
Opportunities for sale of fruit trees and other nursery products..	May 31	Benjamin F. Chase, consular, San Jose.
The market for baled tin cans.....	June 6	Do.
Report on icefactories, iron foundries, and breweries.....	June 10	Do.
Market for American-made gloves.....	June 11	Do.
CUBA.		
The status of seamen.....	June 19	H. W. Harris, consul general at Habana.
Branch of Banco Internacional opened at Matanzas.....	June 25	R. C. Beer, vice consul at Matanzas.
New building constructions in Cienfuegos.....	Aug. 1	Frank Bohr, consul at Cienfuegos.
Market for American-made gloves.....	do.....	Do.
DOMINICAN REPUBLIC.		
Commercial conditions in northern Dominican Republic.....	June 18	Geo. A. Makinson, vice consul at Santo Domingo.
Restricted use of motor trucks in Santo Domingo.....	June 25	Do.
ECUADOR.		
American goods for Ecuador incorrectly classified.....	May 3	Frederic W. Goding, consul general at Guayaquil.
To avoid customs fines in Ecuador.....	May 10	Do.
Observations made during trip to Quito.....	May 15	Do.
Fire works in Ecuador, imports for five years.....	May 16	Do.
Report on conditions for April.....	May 20	Do.
Addition to regulations of alcohol tax law.....	May 22	Do.
Ecuadorian propaganda in the exterior.....	June 11	Do.
Report on commerce and industries for May.....	June 14	Do.
Report on commerce and industries for June.....	July 17	Do.
GUATEMALA.		
Transfer of electric light plant at Guatemala City to an American company.	June 6	E. M. Lawton, consul at Guatemala City.
Reinforced concrete construction in Guatemala.....	June 16	Chas. B. Kehoe, vice consul at Guatemala City.
The glove market.....	July 11	Henry S. Waterman, vice consul at Guatemala City.
Market for certain classes of confectionery.....	do.....	Do.
HONDURAS.		
Market for confectionery in Ceiba.....	July 2	Chas. N. Willard, consul at Ceiba.
The use of motor vehicles in district.....	July 30	Do.
MEXICO.		
Annual report on commerce and industries for 1918.....	May 24	John A. Gamon, consul at Acapulco.
The hospitals of Ciudad Juarez.....	May 27	Stephen E. Aguirre, vice consul at Ciudad Juarez.
British trade in Mexico.....	May 31	Chas. H. Cunningham, vice consul at Mexico City.
Agricultural machinery in Mexico.....	June 2	Do.
Cancellation of Japanese contracts in Mexico.....	do.....	Do.
Production of cotton and beans.....	do.....	Do.
Need of sugar refinery in Mexico.....	do.....	Do.
Annual report on commerce and industries for 1918.....	June 14	Thomas D. Bowman, consul at Frontera.
General business conditions in southern Sonora.....	June 19	Bartlett F. Yost, consul at Guaymas.
Resumption of marine transportation at port of Veracruz.....	do.....	Paul F. Foster, consul at Veracruz.
Annual report on commerce and industries, 1918.....	June 20	G. R. Wilson, consul at Matamoros.
Oil report for May.....	June 22	Claude I. Dawson, consul at Tampico.
New railroad in Michoacan.....	June 24	Chas. H. Cunningham.

Reports received to August 21, 1919—Continued.

Title.	Date.	Author.
MEXICO—continued.		
Bids open for steamship service between Progreso and Quintana Roo.	1919. June 24	Chas. H. Cunningham.
Mexican-Guatemala Railroad Convention.	June 25	Do.
Cancellation of recent embargo between Mexico City and Veracruz.	..do....	Do.
Market for American tobacco in Mexico.	June 26	Do.
The wheat situation in Mexico.	July 7	Do.
Wheat production in northern district of Lower California.	..do....	Sydney Smith, consul at Ensenada.
Report on cultivation and production of beans.	..do....	Do.
Motion picture films in Mexico.	July 8	Chas. H. Cunningham.
Circular No. 37, ordering the suspension of solicitudes of forfeiture (relative to mining claims).	July 18	Do.
The sugar market in Mexico.	July 20	Do.
Interest of Mexican College in American agricultural implements.	Aug. 2	Edward A. Dow, consul at Ciudad Juarez.
Dental work in northern Chihuahua.	..do....	Do.
NICARAGUA.		
Report on mahogany stumps and spurs.	June 19	John O. Sanders, consul at Bluefields.
PANAMA.		
Needs of the cattle industry in Panama.	May 30	Alban G. Snyder, consul general at Panama City.
Forest sawmills.	June 3	Do.
Essentials for commercial development with Latin America.	June 4	Do.
Bonded warehouse on Isthmus.	June 18	Do.
Shipping bananas from Colon-Cristobal to New York.	..do....	Julius D. Dreher, consul at Colon.
Golf club in Panama.	June 20	A. G. Snyder.
Monthly report, May.	June 26	Do.
Market for confectionery.	July 11	Do.
PARAGUAY.		
Paraguayan paper-money exchange.	Apr. 14	Henry H. Balch, consul at Asuncion.
Registration of trade-marks in Paraguay.	Apr. 15	Do.
Monthly report on commerce and industries.	Apr. 25	Do.
Market for fireworks in Paraguay.	May 15	Do.
Monthly report for April.	May 24	Do.
Practice of handling exports and imports and the covering bills of exchange.	May 26	Do.
PERU.		
Opportunities for sale of fruit trees and other nursery stock.	June 7	William W. Handley, consul at Callao-Lima.
Tea and pepper planting in Peru.	..do....	Do.
Population of Peru.	June 10	Do.
Tungsten situation in Peru.	June 14	Do.
Cold-storage plant for Lima.	June 17	Do.
URUGUAY.		
British jewelry specialists visit Montevideo.	Apr. 10	William Dawson, consul at Montevideo.
Belgian colonists interested in portable houses.	Apr. 12	Do.
Japanese commerce with Uruguay.	Apr. 15	Do.
Uruguayan Customs Regulations, Law of Dec. 18, 19.	May 9	Do.
Postal parcels in Uruguay, consular fees to be collected on postal parcels containing merchandise.	..do....	Do.
Sewerage at Montevideo.	May 12	Do.
Seal killing in Uruguay.	..do....	Do.
Binding twine for farmers.	May 15	Do.
Financing Uruguay's export trade.	May 19	Do.
Postal savings bank in Uruguay.	May 20	Do.
Customs regulations concerning damaged goods.	..do....	Do.
Uruguayan commission to study traffic questions in the United States.	May 22	Do.
Automobiles, licenses, duties, etc.	May 27	Do.
Insufficient housing facilities at Montevideo.	June 26	Do.
Proposed budget extension in Uruguay.	..do....	Do.
VENEZUELA.		
Preliminary review of Venezuelan trade for 1919.	June 5	Homer Brett, consul at La Guaira.
Importation of arms into Venezuela prohibited.	June 7	Do.
Motion pictures in Venezuela.	June 9	Do.
Economic report for May.	June 19	Do.
Shipping prospects at La Guaira.	June 23	Do.
National City Bank of New York is establishing a branch at Maracaibo.	June 30	Stewart Johnson, consul at Caracas.
Budget for fiscal year 1919-1920.	July 10	Homer Brett.
Market for American-made gloves.	July 11	Do.

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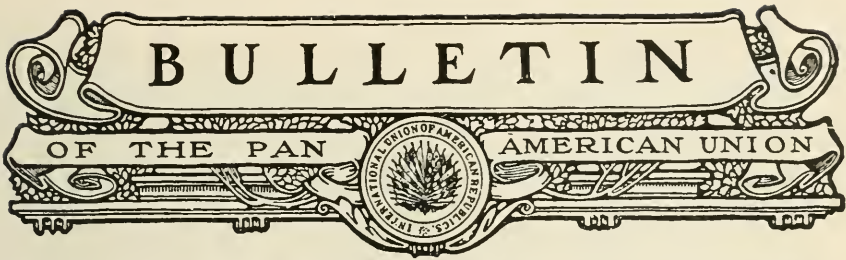
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ONE OF MANY BEAUTIFUL SCENES ALONG THE CATUCHE, CARACAS.

The Catuche is one of the rivers that have their source in Mount Avila and traverse the valley in which Caracas lies. The banks of the stream are covered by thick leafy vegetation and offer many spots like the one reproduced in the picture for the enjoyment of the inhabitants of Caracas.



VOL. XLIX

NOVEMBER, 1919

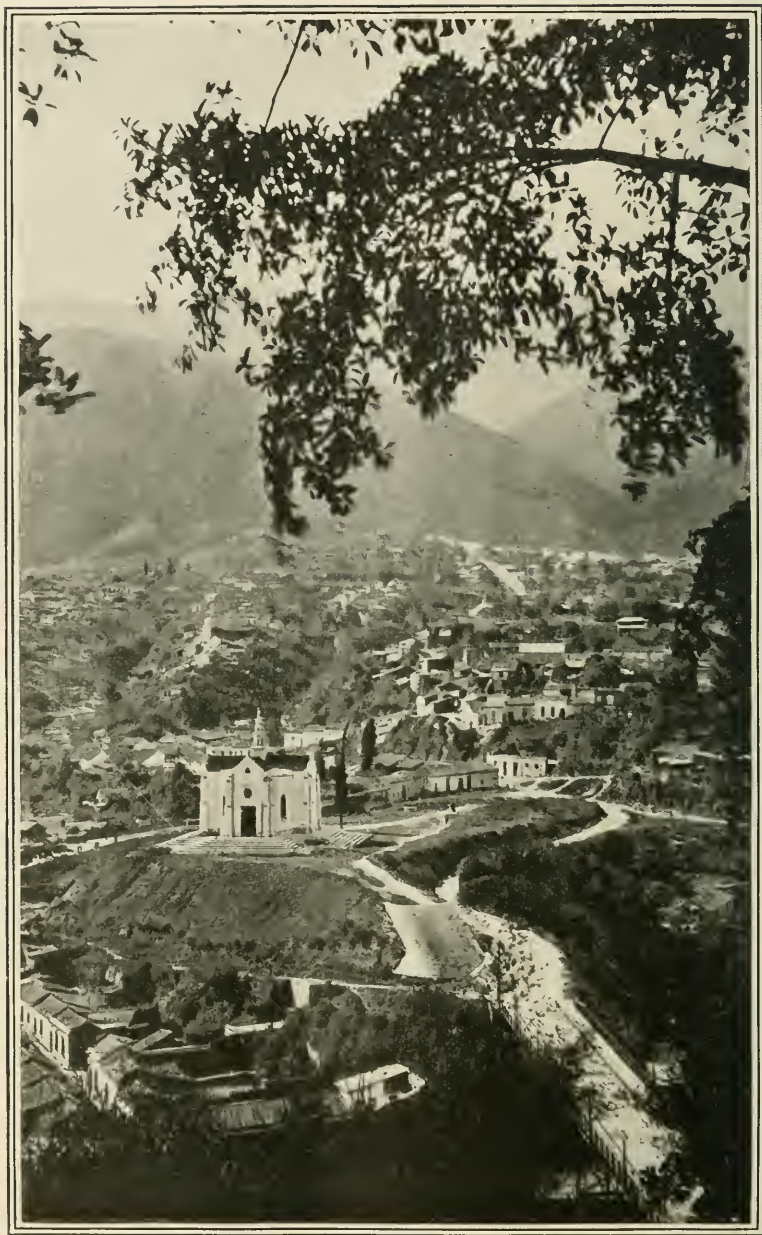
No. 5

THE CITY OF CARACAS¹

ABOUT the middle of 1567 the city of Santiago de Leon de Caracas was founded by the conquerer, Diego de Losada, whose origin is not accurately known and concerning whose person and history, before he came to America, no definite information is obtainable. It is said that he was born in Rio Negro, province of Zamora. He was a page to the Count of Benavente, and came into public view in 1583 in Puerto Rico, where he enlisted in the army with which Antonio Cedeño proposed to explore the regions drained by the Meta River. After many arduous and tragic hardships, such as were usually experienced by those early adventurers, and after having explored a large part of Venezuela, Losada returned to Macapana, from whence he went to Coro, at that time the headquarters of the Germans, to whom had been entrusted the provincial Government by the Spanish monarch. From there he proceeded with Villegas in the direction of the plains, via Borburata, stopping at Cumaná and Cubaguá. He returned soon thereafter to Coro and took part in the expedition of Pérez de Tolosa, who explored part of the regions of Lake Maracaibo, and arrived at Cùcuta, from whence he returned to Tocuyo. Soon after this he became alcalde, or mayor, of the recently founded town of Barquisimeto, and undertook, and successfully carried out, the conquest of the province peopled by the Caracas Indians, a wild race that courageously defended their holdings. The half-breed, Fajardo, who had become established in this region, discovered gold within its boundaries and thereby induced the conquerors to take possession of the land.

From El Tocuyo there came in the rôle of conquerors, first, Pedro de Miranda, then Juan Rodríguez Suárez, who died fighting the Indians, and, later, Luis de Narváez, who perished in the same man-

¹ English version of the Spanish article written for the BULLETIN by Dr. J. Semprum, of Caracas, Venezuela.



THE COUNTRYSIDE AROUND CARACAS.

The photograph was taken from the hill on which the Paseo del Calvario is located. It gives a view of the country to the northwest of the capital, at the foot of Mount Avila.



PALACE OF MIRAFLORES.

The building appearing in the foreground, called the Palace of Miraflores, is the official residence of the Presidents of the Republic. The building in the background to the left is the Iglesia de la Pastora at the foot of Mount Avila, whose base is 2,000 meters above sea level.

ner. The famous Diego García de Paredes lost his life at the hands of these same tribes, who caused to retreat from these regions shortly afterward, Pablo Bernáldez and Marshal Gutierrez de la Peña, a famous warrior. It was at that time that Losada was chosen to subdue the Indians. He had better success than his predecessor, notwithstanding the fact that he had to wage a bitter fight with the native chiefs of the territory, who defended it furiously, especially with the cacique Guaicaipura, renowned for his patriotism and bravery. Guaicaipura was killed in an ambushade, and 23 caciques, attracted and deceived by presents offered under the guise of friendship, suffered a like fate in the midst of horrible tortures. The conquest of the land was accomplished and the division of the spoils begun.

The city began to prosper after the subjugation of the Indians in spite of the misfortunes which had fallen upon the province (among these, the invasion and pillage by the pirates of the famous fillibuster, Preston), and before long it was made the headquarters of the captaincy general of Venezuela.

The government of Caracas was organized according to the system which had been adopted for the Spanish colonies of America. The illusion of El Dorado no longer engaging the minds of the conquerors, they occupied themselves in founding towns in due form, providing them with municipal governments, consisting of a town corporation or city council, and dividing the lands and the Indians among the colonies according to their merits. The Indian population, which rapidly perished on account of privations and bad treatment, was in time replaced by slaves brought from Africa. In Caracas, as in all the other towns established in Spanish America, the same customs were followed.

It has been said that the location of Caracas was chosen for the purpose of preventing Indian ambushades and attacks. The topography of the land does not seem to confirm this. It is easy to imagine into what the first Spanish camp would develop, converted little by little into a town, which grew gradually until it became a city. Soon after becoming the headquarters of the captaincy general it acquired a decided preponderance in the management of the public questions of the province, obtained certain relative advantages which gave it undoubted superiority over the other urban centers, and its inhabitants progressed in the study of science and of the arts, so that in 1810, when the revolution of April 19 broke out, Caracas was the center of the uprising and gave an example to the other towns of the real spirit of Spanish America.

The causes of the revolution and the unfortunate mistakes of the Spanish Government which accelerated them are well known. The ideas of encyclopedic philosophers and the success of the French



NOTABLE BUILDINGS OF CARACAS.

Upper photograph: To the left appears the capitol, where the legislative bodies meet. To the right, separated from the former by a little plaza, is the university, a massive colonial structure with a gothic façade; its exterior measures some 8,000 square meters. Lower photograph: The federal palace, part of the capitol, contains among its fine salons, the elliptical salon, which is decorated with the fresco of the battle of Carabobo, by Tovar y Tovar. It is the building in which all official receptions are held. The wings of the capitol and the federal palace are occupied by the Federal Supreme Court and the Court of Cassation, the office of the attorney general of the nation, the ministry of internal affairs, and public instruction.



STATUE OF THE LIBERATOR.

This monument commands the center of the Plaza de Bolívar, which is the heart of the city. Back of the statue are the fine public buildings of the ministry of foreign relations, the palace of justice, the central post office, the cathedral, and the palace of the archbishop. From the avenues that surround the plaza the various electric car lines start that cover the city.

Revolution inflamed the minds of the creoles. The invasion of the Iberian Peninsula by Napoleon and the base conduct of the Spanish sovereign brought about the hoped-for occasion. The Caracas revolutionary forces took advantage of the opportunity to spring their long-matured plans, in the execution of which they relied upon the support of many important persons besides that of some of the troops. The new, predominating creole race, which formed slowly under the protection of the colonial régime, had been aspiring in a confused way for a long time to decisively take upon itself the management of its own affairs. Breaking away from all submission to a court whose scandals were as patent as the inaptitude shown by their public men for the Government of the peoples of America, the youth of the best families of Caracas organized the insurrectionary movement.

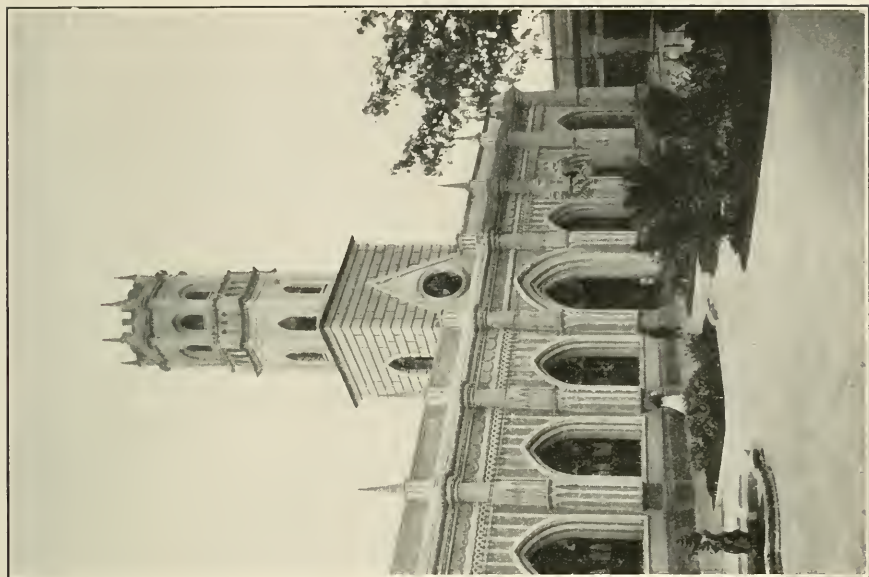
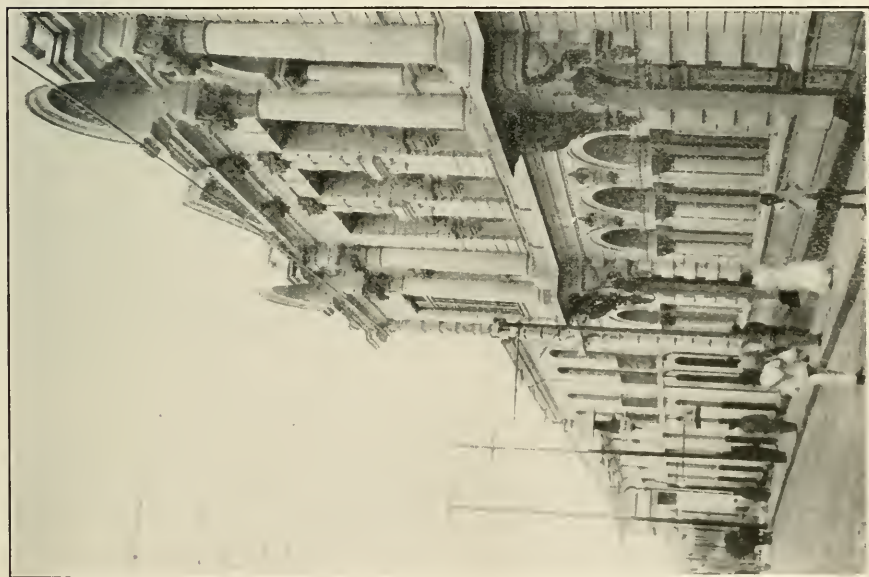
The conspirators chose a holiday, Good Friday, April 19, 1810, as the date on which to strike the blow. The captain general, Emparan, in full uniform, together with his staff, was to participate in the festivities. That the conspirators were novices is shown by the fact that the plan nearly failed twice on the same day—first, when Emparan marched to his residence without the attempt of anyone to prevent him from doing so until Francisco Salias, “in a rage and with dagger in hand” (according to the statements of the royalists), “energetically but courteously” (according to the version of the patriots), “seized the governor and compelled or induced him to go to the city hall, where he was told he was awaited to consider urgent business of the Government.” Emparan consented, or rather yielded, to the urging of Salias and his companions and meekly marched to the city hall. The plan of the conspirators, who were novices from start to finish in attempts at political intrigues, would still have miscarried had it not been for the astuteness of Canon Madariga, a Chilean by birth and a priest with an active mind. When the kind-hearted Emparan, standing in the balcony of the city hall, asked the crowd assembled in the street below if they did or did not wish him as governor, the crafty priest, who stood behind the captain general, made vigorous signs in the negative. The people saw these and cried out, “No, we do not wish it.” Whereupon Emparan sorrowfully answered that he, too, did not wish to govern. The most sanguine revolutionist could not have wished for better results.

Even then it was thought that the people desired to retain in the land the sovereignty of Ferdinand VII; but, while the revolution appeared to bear a certain stamp of loyalty to the Spanish ruler, no one was deceived concerning its true significance. America demanded and assumed the right of self-government. A few months later independence was a topic that was being discussed in public, and when the Congress of the Province of Venezuela met at Caracas, July 5,



THE CATHEDRAL OF CARACAS.

The construction of this cathedral was commenced in 1641, and it is the most ancient building in the capital. It is of fine proportions and holds many works of art, chief of which is 'The Last Supper,' executed by the Venezuelan painter Arturo Michelena.



VIEWS OF CARACAS.

Photograph to the left: The Academy of Fine Arts, where painting, sculpture, architecture, music, singing, and public speaking are taught. Photograph to the right: Palace of the academy, seat of the National Academy of History, and the Venezuela Academy of the Language. Both institutions are in possession of fine libraries.

1811, the declaration of independence that was made surprised no one.

It was then that the glorious Caracas campaign began. The revolution had commenced in a gentle and pacific manner, and its first acts against the enemies of a free country were so timid and mild that the first Republic received the name of "The Foolish Republic". But hours of blood and horror were approaching. The first generals of the Republic failed miserably. Miranda, the girondin, who was appointed general in chief, surrendered at Maracay to Monteverde, an obscure soldier.

To cap the climax of the misfortunes which overtook the patriots, an earthquake caused terrible destruction in Caracas on March 26, 1812. The royalists, and the Spanish clergy especially, took advantage of that catastrophe to sow in the credulous minds of the people the belief and the fear that it was Divine Providence who was in that manner punishing the patriots for their excesses and opposition to the king and to religion. The extent of the havoc caused by the disaster was appalling. It is said that 12,000 persons were buried beneath the ruins. But the injury to the revolution was even greater and more deplorable. The mass of the people, obedient to the insinuations which came from the pulpit, refrained through fear from aiding the patriots, while not a few fanatics joined the ranks of the royalists, thereby assisting and giving a formidable impulse to a royalist reaction. The people arose, proclaiming Ferdinand VII, and the revolutionists fled into exile. Those who were unfortunate enough to remain flooded the gallows with blood or filled the terrible dungeons of the ports of the Caribbean Sea or the prisons of Spain and Africa.

The success of Montaverde was, however, greatly superior to his talents, and quickly vanished when Bolivar descended from the frontier mountains of New Granada, swiftly traversed the territory of Venezuela, and victoriously entered Caracas, which joyfully conferred upon him the title of the "Liberator." But royalism had still many adherents in the country, and the plainsmen assembled around a magnetic leader who had some of the qualities of Attila and Hannibal and whose hosts of horsemen raced over the whole country. It was Boves who leveled everything in his path and arrived victorious at Caracas, from whence Bolivar escaped with the patriots, guarding a numerous migration. The inhabitants of Caracas fled, horrified, toward the east before the terrible fame of the hordes of the plain.

This is one of the unhappiest and yet most glorious pages of the history of Caracas. Many factors brought about that exodus which to-day seems to us an absurd adventure. Its real significance lay in the fact that it was a protest against the invasion of the barbarians of the plains and the determination of the inhabitants of Car-



VIEWS OF CARACAS.

Upper photograph: Office building of the Gran Ferrocarril de Venezuela. This railroad is 178 kilometers long and connects Caracas with Valencia. The building reproduced in the picture is one of the handsomest of the capital; it is opposite the station of the La Guaira-Caracas Railroad, on the Paseo del Calvario, which may be seen in the foreground of the picture. Lower photograph: Paseo del Paraíso. This paseo is the longest and most modern in Caracas; along its entire length are beautiful and costly homes surrounded by gardens.



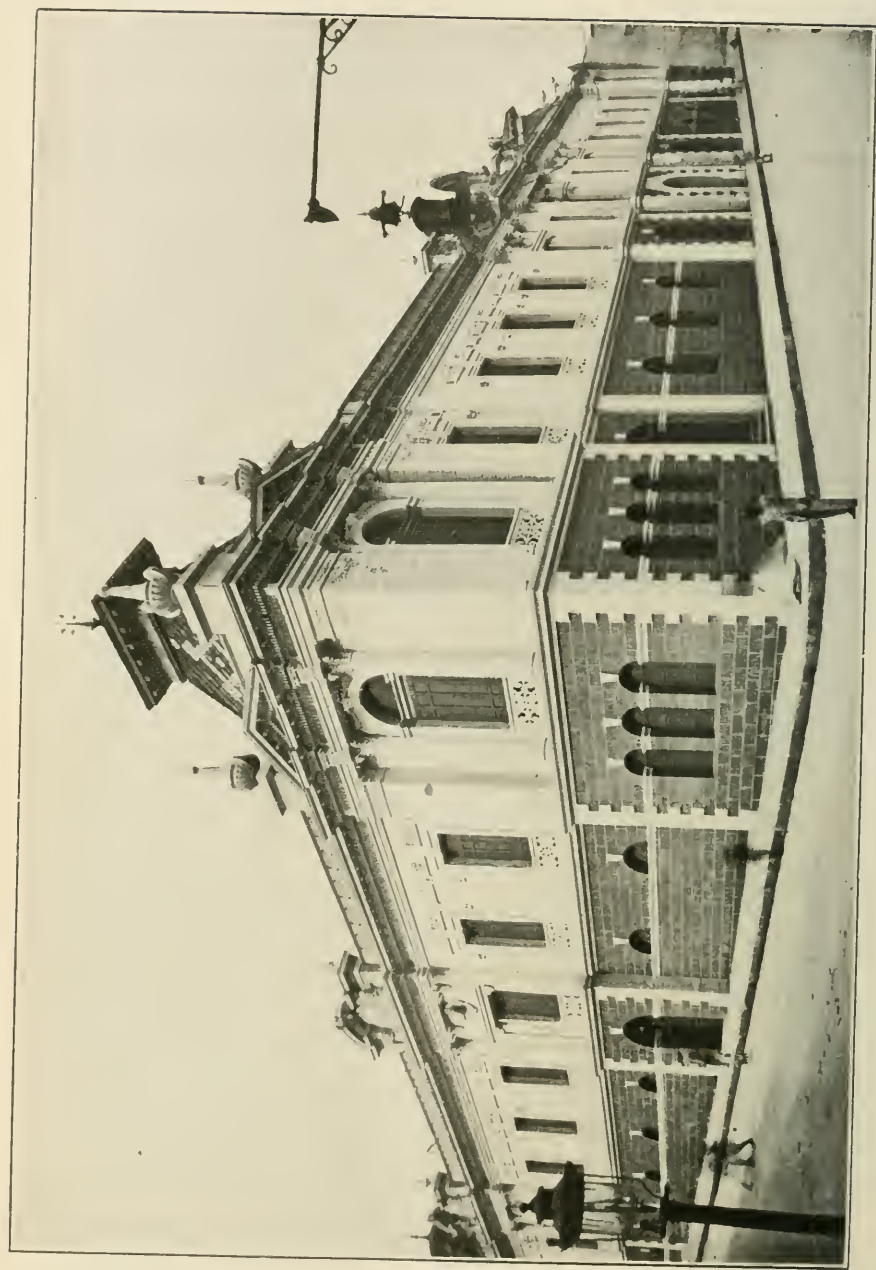
IEWS OF CARACAS.

Upper photograph: The birthplace of the Liberator. In this colonial residence, on July 24, 1783, was born Simon Bolivar, Liberator of Venezuela, Colombia, Ecuador, and Peru, and founder of Bolivia. The mansion has just been restored under the direction of the Venezuelan historian, Dr. Vicente Lecuna, and will soon contain the fine collection of relics which were once the property of the great hero and other Venezuelan patriots. Lower photograph: Palace of Justice. In this building are the court rooms and offices of the government of the Federal District. The corner of the building is formed by the salon of the municipality of Caracas, its interior being the same as when, on July 5, 1811, the independence of Venezuela was declared there. In this same salon may be seen the celebrated standard of Pizarro, which he carried to the conquest of Peru, and the famous painting by Tovar y Tovar, representing the signing of the act of independence.

acas to remain free and not to suffer insults from the enraged victor. The flower of the youth of Caracas had perished on the battle fields in opposing the onward march of the fierce hordes of Boves toward the capital, and in La Victoria the cruel chieftain was detained by an army of beardless boys recruited from the schools and even from the seminary by José Félix Ribas. The exodus toward the east completed the catastrophe. "The unwise emigration took away from Caracas," writes Baralt, "more inhabitants than the earthquake of March 26, 1812." The center of the Republic was converted into a desolate and sterile waste and Caracas in those days resembled a cemetery. She had given to the revolution all that she possessed, and fate repaid her heroism and her tenacity with ruin and misery. Nevertheless, her courage overcame all the adversities. Subjugated by the followers of the king, she knew how to bear with dignity the yoke of her servility until the battle of Carabobo brought about her political emancipation.

While the country was being pacified, Caracas began to restore the destruction caused by the war. Her advantages as the capital permitted her to rapidly repair all damages, although the civil wars with which the country was afflicted for a number of years considerably retarded her progress. Thus, at the close of a long struggle, she maintained intact her appearance as a colonial town. It was during the administration of Guzman Blanco that her transformation began. That government, imbued with a spirit of material progress, gave to Caracas the first elements of modern life by constructing beautiful driveways, theaters, plazas, buildings, and, for that period, artistic monuments. But it is within the last 15 years that Caracas has rapidly changed. The old colonial city with its flat, ill-proportioned houses, with their broad eaves and shady courts or patios, with its dusty, miry, and badly paved streets, slept through its siestas with the same apathy and unconcern as did its priests of the eighteenth century. It has now been transformed into a modern city full of the noise of traffic and enterprise, with paved streets, suitable for the use of automobiles, fine buildings, and beautiful driveways.

To-day the city has a pleasing aspect and is growing more and more attractive. Its streets are still too narrow for the volume of traffic, especially in the business sections. The municipality embraces a large area, and it has not been necessary to build high buildings so that there are not many houses of two stories and fewer still of three. Its public promenades are bordered with the tropical flora which a climate of perpetual spring makes possible. El Paraíso (Paradise), a picturesque avenue with wild views of nature, bounds the city on the south with a border of green forests dotted with fine villas, and from which a wonderful view of the valley may be had



THE MINISTRY OF THE TREASURY.

This building, constructed two years ago, occupies the site on which stood the convent of the Carmelites of the city, which was remodeled in 1874 for the offices of the treasury. The old building was torn down and the one shown in the picture built in its place.



VIEWS OF CARACAS.

Upper photograph: Bridge over the Guaire River, in the southern part of the city, which is one of the entrances to the beautiful Paseo del Paraiso. From this point a beautiful panorama of the city is obtained, spread out like a gently graded amphitheater from the slopes of Mount Avila to the banks of the river above named. To the left appears, on the hill, the Paseo del Calvario. Lower photograph: Church of Santa Teresa. This is considered the finest church in the Republic, more than 5,000,000 bolivares, or something over a million dollars, having been spent in its construction.

through which flow the waters of the Guaire River, which is crossed by many bridges. Farther to the west this promenade joins December Avenue, which belts the metropolis in that direction.

El Calvario (Calvary) or Independence promenade is a hill which industry has converted into pleasant parks, thanks to a spiral roadway which leads to its summit, on which a zoological garden has been established. Near by are the reservoirs of the main aqueduct that supplies Caracas with water and in which improvements have recently been made in accordance with the most advanced rules of hygiene. From this flower-covered height a panorama of the city and of the entire valley can be seen.

Among the principal edifices of Caracas, the capitol is worthy of special mention. One of its halls, known under the name of "Salon Elíptico," contains a gallery of paintings of the celebrated patriots made by the most renowned Venezuelan painters. The ceiling of this hall portrays the decisive battles for emancipation, excellent compositions depicting the heroic events illustrated by the brush of Tovar y Tovar, the artist. In the right wing of the building is the hall of the cabinet, containing one of the most noted works of the Venezuelan painter, Tito Salas, namely a triptych which shows three culminating events in the life of Bolívar—the "Oath at Monte Sacro," to free the country; the "Crossing of the Andes," before the battle of Boyacá; and the "Death of the Hero." In the National Pantheon, situated to the north of Miranda Plaza, are the remains of Bolívar, as well as the ashes of many other patriot warriors and civilians of the Republic, in a celebrated monument, the work of the sculptor Tenerani. Miraflores, the official mansion of the President of the Republic, is an elegant palace erected on a commanding site. Other notable buildings are the university; the Palace of the Academies, which is the headquarters of the Venezuelan branch of the Royal Spanish Academy, and the National Academy of History; the Yellow House, or old presidential mansion, now the foreign office and its annexes; the treasury, erected on the site formerly occupied by the Carmelite Sisters; and the Palace of Justice, which contains the offices of the courts and of the government of the federal district and the municipality of Caracas. Not long ago there was opened for use the building constructed for the general inspection office of the army. The Bolívar museum, containing relics and historical objects which belonged to the Liberator, or to the principal heroes of the independence, was recently established. The national museum, installed in the university building, contains galleries of paintings and sculpture of the principal artists of Venezuela, and valuable collections of stuffed animals, Venezuelan woods, and minerals.

The military academy, an institution in which young Venezuelans prepare themselves for the vocation of arms, is on the summit of one



MAUSOLEUM OF BOLIVAR IN THE PANTHEON.

The ashes of the Liberator rest in the base of this beautiful monument of marble, work of the celebrated Italian sculptor, Tenerani. The monument is under the cupola of the National Pantheon, where the illustrious men of the Republic are buried. The Pantheon stands on the most elevated point in the city and is in the northern part.



TWO INSTITUTIONS OF HIGHER EDUCATION.

Upper photograph: Southern wing of the university, in which the school of engineering is located. The bust seen in the picture is that of the eminent mathematician, Manuel de Cajigal, who reformed the course of study of the exact sciences. Lower: The military school. The school is built upon a hill to the west of the city, and is the West Point of Venezuela, where the future officers of the Army are trained.

of the hills which overlooks the west, and the astronomic observatory is situated on Cagigal Hill, farther to the south.

The hospital and public charity buildings are under the direction of the government of the federal district, and among the institutions connected with them is the Vargas Hospital, so called in honor of the learned Venezuelan physician, José Vargas, sometime president of the Republic, and to whom is due the introduction into Venezuela of useful reforms and scientific systems during the first years of the life of the nation. In this hospital, medical students study clinics, and destitute patients receive attention and treatment gratis. Services are also to be had for an adequate consideration and in a special section of the hospital for patients who so desire. The Vargas Hospital is one of the most useful institutions of the country not only because of its charitable work, but also because young students of medicine and surgery acquire practical instruction there. In Caracas there is also a society for the destitute aged, and an insane asylum located in the northern part of the municipality at a place called Catia, all maintained by the municipal government, as well as some other eleemosynary institutions, partly supported by private charity, among which may be mentioned a nursery or creche for indigent children. This later institution receives a municipal subvention and numerous private donations.

There are many parks and plazas in Caracas and in some of them tropical vegetation is to be found in great profusion. Bolivar Plaza, situated in the center of the city, is one of the places most favored by the public. It is located near the main offices of the Government and the most important commercial establishments, and is the natural hub of urban traffic and all the electric tramways which radiate toward the outskirts of the capital cross the surrounding avenues. Mornings and on Sunday nights the resting places in Bolivar Plaza are thronged. Caracas still observes a custom, without doubt handed down from colonial times, when the town was small and its inhabitants like one family, of celebrating the coming of the new year with the ringing of the near-by cathedral bells and by cannon shots from Calvary esplanade. It is then that the spirit of the people finds expression in mutual good wishes there beneath the equestrian statue of the Liberator erected in the center of this plaza.

Since the time of the conquest the people of Caracas have shown great fondness for external religious manifestations. The city has many churches and some of them are most interesting. The cathedral has a number of meritorious works of art. Among these are paintings of Herrera Toro which decorate the cupola, and "The Supper" of Arturo Michelena, which the artist left unfinished. The church of "La Pastura," situated in the center of the district of the same name, in the upper part of the city, has "The Purgatory" of Christopher Rojas, one of the jewels of Venezuelan art.



HOUSES OF CARACAS.

In Caracas there still exist many beautiful houses of Spanish colonial style and origin. During later years many houses of the modern type have been built, but not without the "patio," which is the most distinctive architectural feature of the houses of the city.

In point of intellectual activity Caracas has an interesting record. The inhabitants of the capital valued learning from the colonial times, and celebrated travelers were surprised to find even then in this semibarbarous land of the tropics men of refined taste and superior understanding. These virtues have been preserved throughout the years, and with the founding of the Republic learning began to flourish, producing in successive generations philosophers, literary writers, and poets even of the metropolis, who enjoy a continental reputation. Caracas was the birthplace of Simon Bolivar, orator, statesman, and warrior; of Andres Bello, the educational leader of Chile, one of the most notable Americans, whose Spanish grammar is a model, containing clear and well-arranged rules, and is still recognized as one of the most authoritative works on this subject up to the present time. He also composed some of the most beautiful poems in the Spanish language, among which may be mentioned, "*La Silva a la Agricultura de la Zona Tórrida*" (an ode to the Agriculture of the Torrid Zone) and "*La Oración por todos*" (an Oration for Everyone). There were also men like José Vargas, the physician, statesman, and philanthropist; Juan Vicente Gonzalez, the noted publicist, now half forgotten; Cecilio Acosta; and Pérez Bonalde, the celebrated poet. At the present time Caracas has a group of brilliant and accomplished men in the fields of science and letters.

The sanitary work of Caracas has recently been reorganized and the necessary steps taken to provide the city with an abundant supply of drinkable water, and a decree has been issued requiring the construction of a complete system of sewers to remedy existing defects in drainage.

The commercial importance of Caracas continues to develop, and the business of the entire central region of the Republic has become tributary to the capital. Large foreign banks have established branches there, and expanding mercantile operations are predicted for the metropolis during the next few years inasmuch as factorics are being founded whose smoking chimneys are beginning to cloud the clear sky of that zone. All signs indicate that industry will soon convert the city into a manufacturing center of importance. There are waterfalls in the vicinity, which will soon produce an abundance of power for the operation of modern machinery. The port of La Guaira, 16 miles from Caracas, is, comparatively speaking, but a short distance from the principal consuming and producing countries of the world. This, together with new means of communication which practically annihilate distance, will greatly aid in thoroughly modernizing the beautiful Venezuelan capital.

Maritime communication will necessarily increase to meet the needs of Venezuelan production, while aerial navigation will be a powerful factor in the development of the capital of the Republic. When it is possible to fly in a few hours to or from the West Indies,



MONUMENT OF THE 19TH OF APRIL.

This beautiful monument, placed in the Paseo del Paraíso, was unveiled during the days of the celebration of the first centennial of the independence of Venezuela. On it appear the figures, crowned by Fame, of Salas and Madariaga, who filled important rôles in the events of the 19th of April, 1810, in which the emancipation of Venezuela had its beginning. The high relief at the base of the pedestal represents the arrest of the Spanish Captain General, which took place in front of the Cathedral on the historic date.

or from the great North American cities to the spring-clad shores of La Guaira, the Valley of Caracas will probably be converted into a place of rest and recreation for those who desire to escape the intense heat of summer, or the disagreeable, biting cold of the winters of the Temperate Zone. A perpetual spring which clothes the fields and neighboring hills with verdure and flowers, an agreeable temperature, never rising to the point of enervating heat or falling to benumbing cold, and a sky whose blue and perennial softness delights the eye, will greet the future tourist. There he will find, within the Tropics, the soothing and gentle refuge where nerves, irritated in busy industrial marts, will recuperate such balance and harmony as may be necessary for the enjoyment of life in this strenuous world.

SOUTH AMERICAN OBSERVATIONS¹

ON THE commercial horizon of the to-morrow no section of the world looms so large in its commercial possibilities as the great continent to the south of us—South America. Four years of world strife have come to an end and the foe that threatened human liberty and progress has been overthrown. The whole world starts with a new sheet—a fact comparatively few of us grasp. In my belief the very moment the peace treaty has been ratified by all the signatory powers the entire world will experience an unexampled period of commercial activity, and there will spring up in all countries a justifiable ambition for trade expansion.

Where will the nations of the earth seek this trade expansion? Not in Europe, with its devastated lands, its disorganized industries, and its impoverished peoples; not in the United States, nor in Canada, nor, for that matter in any of the lands which have experienced the effects of the war. South America will be the new field for world conquest—South America, with its treasure houses of inexhaustible wealth, its indefinable forests of valuable hardwoods, its myriad acres of fertile, unpeopled lands; its unimpaired credit, its boundless wealth.

Having just returned from an extended tour of South America, I feel deeply impressed with its great latent wealth, and realize that the future national progress of that region and of our own country must be closely interwoven. What, then, must we do to bring about this happy condition—to take advantage of the splendid opportu-

¹ By George deB. Keim, vice president Chandler & Co. (Inc.), Philadelphia.



Photo by Underwood & Underwood.

VIEW OF LIMA FROM THE HILL OF SAN CRISTOBAL.

Seven miles inland from Callao by train and trolley is this beautiful capital of Peru. Near the center of the picture one can catch a glimpse of the River Rimac. The large circle on the left is the bull ring, one of the largest in the world.



AREQUIPA, PERU, AND MOUNT MISTI.

One of the most interesting cities of Peru, situated in a lovely valley 7,500 feet above the level of the sea.



THE AREQUIPA OBSERVATORY.

Harvard College chose this location for its astronomical researches. The wonderful clarity of the atmosphere makes it possible for astronomers to secure marvelous photographs of the heavens. Upon the crest of this mountain stands the world's highest meteorological station.

nities offered? Geographically, we are in a singularly fortunate position. The interests of the Latin Americans are at heart similar to our own. We produce the manufactured articles they require. They raise the products our varied industries demand. It would seem, therefore, the part of logic that the preponderant portion of their trade should be ours.

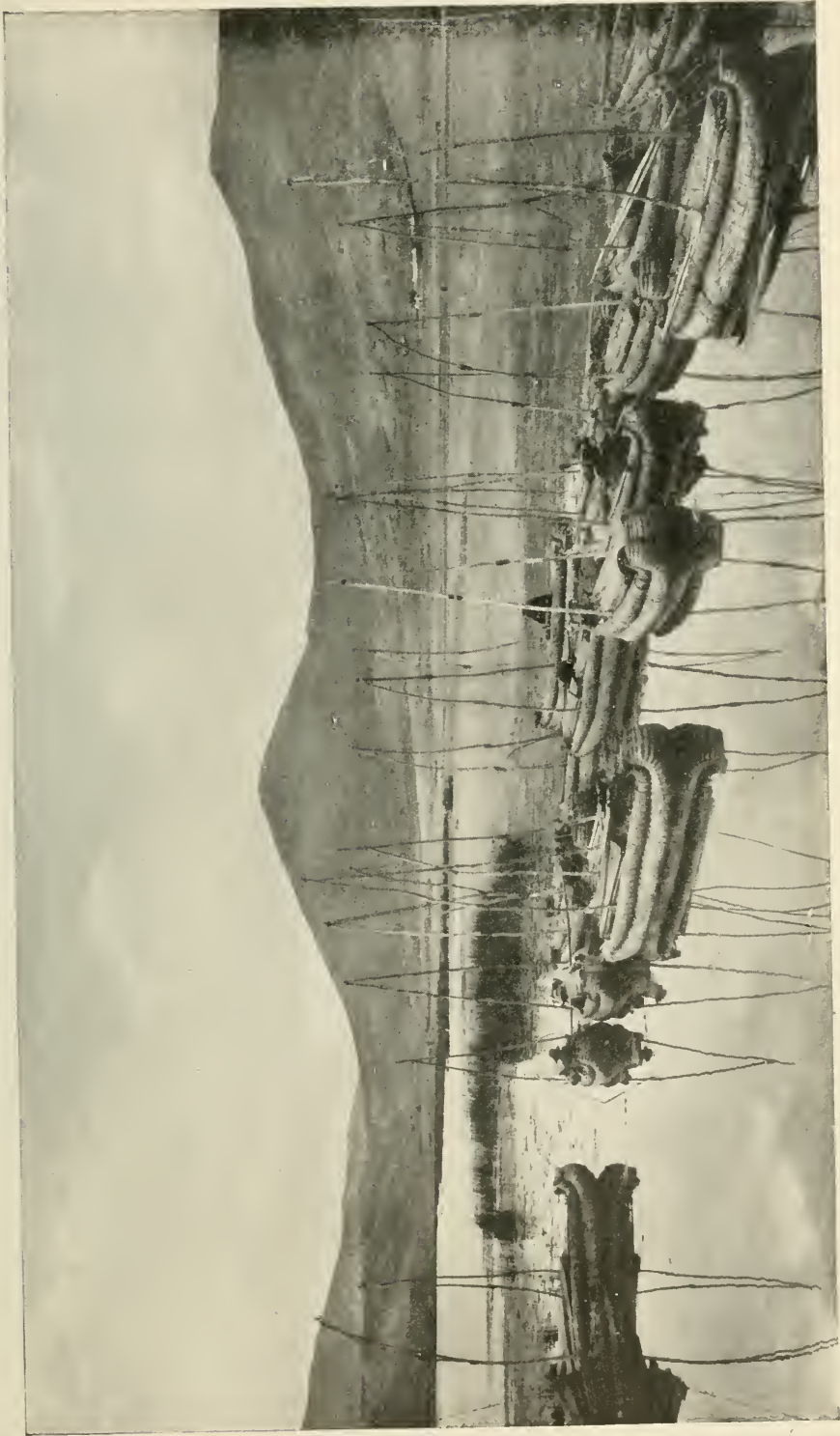
Now as to our trip. We left New York on the Pacific Steam Navigation Co.'s *Oriana*, on March 19, having been held up for some days by the longshoremen's strike. The *Oriana*, which had just been released from transport service, this being her first voyage since the entry of the United States into the war, still bore traces of military service. The passengers consisted very largely of American manufacturers and exporters who had commercial connections with Central and South American countries, or were going to investigate the opportunities for establishing them.

Touching at Kingston, Jamaica, on the 24th, we reached Panama on the 26th, enjoying for a few hours the hospitality of the Hotel Washington at Colon. Next morning we made the journey through the canal, and could not but be impressed with the titanic work which, although it has been opened on equal terms to the entire world, and in that regard is international, must stand forever as a monument to American endeavor, ingenuity, and achievement.

We arrived at Balboa, the Pacific entrance to the canal, in the evening, and were afforded the opportunity of seeing a large number of German ships that had been interned in Chile during the war and were being put into commission again.

Leaving Balboa the same evening, we crossed the Equator on the 29th, and two days later arrived at Callao, the chief port of Peru, said to be the only harbor north of Valparaiso where ships can make dock. There is a large floating dry dock at Callao, which will accommodate vessels up to 8,000 tons, and the port facilities are fair.

On April 1 we reached Lima, the beautiful capital just 7 miles inland and connected with Callao by train and trolley. Lima's hotel accommodations are not of the best at present, but it is said that American capitalists are contemplating erecting a modern fire-proof hotel. Surely it is a verity that sometimes capitalists are philanthropists. Lima is said to be the most Spanish of all South American cities, and with good reason, for it was founded by Francisco Pizarro, and during the entire Spanish régime in South America it was the chief seat of government. The city has many substantial monuments to its Spanish founders, including the cathedral, whose cornerstone was laid by Pizarro in 1533; the Government Palace, the Plaza de la Inquisición, the Plaza de Armas, and many other buildings and residences that well might grace the streets of a Cas-



Courtesy of Travel.

LAKE TITICACA, BOLIVIA.

Vessels, some of which are of 1,200 tons gross register and have sleeping accommodations for 125 people, ply this highest steam-navigated lake in the world. In equipment and service they are equal to any of America's inland craft. In the foreground may be seen balsas, boats made of close-woven straw and used exclusively by the natives.



OFFICE OF THE NATIONAL BANK, ORURO, BOLIVIA.

The capital of the State of the same name, Oruro, was founded in 1595 and has a population of 28,000. It is situated on the road from Antofagasta to La Paz, 3,694 feet above sea level, in the center of a rich mining district.



WORKS OF THE CHILE EXPLORATION CO., CHUQUICAMATA.

A section of the great copper works in Chile, owned by the Guggenheims, which cover thousands of acres. This settlement, where it never rains, is 115 miles from Antofagasta.

tilian city. Lima is quite modern in some respects, but still lacks sanitary facilities. These, however, have been provided for, as have also the pavements of which the city is much in need.

Peru has immense resources. Nearly 700,000 square miles in extent, it embraces topography of almost every character. Its mineral resources especially are very great. While in Peru I took occasion to visit the great copper mines of Cerro de Pasco, which, situated 14,419 feet above sea level, are said to be the highest actually worked mines in the world. Cerro de Pasco is reached by the Central Railway of Peru from Lima to Oroya, a distance of 135 miles, and from there by the Cerro de Pasco Railway, a distance of about 90 miles, the last-named railroad being the only system in the world having a general elevation of 12,000 feet. The Central Railway of Peru is the highest standard gauge railway in the world, attaining at its summit an altitude of 15,865 feet. Its main line, 235 miles in length, was nearly 40 years in the building, and in its construction as many as 8,000 men were employed at a single time. To reach the summit, one has to pass over 41 bridges and through 60 tunnels, the average ascent being 21 feet a mile. The road was built by John Meiggs, the eminent American engineer.

Peru offers splendid opportunities for American investment. At the present time the great resources of Peruvian wealth are copper and sugar. The sugar industry especially has been tremendously developed since the war. Conditions for cane-sugar growing in Peru are excellent, and with an extension of irrigation will be even better than at present. The yield per acre has averaged nearly 50 tons per annum for the past few years. In addition to many big commercial plantations, there are thousands of farmers who, attracted by the high prices that have prevailed since the beet-sugar industry of Europe has been disorganized, have been growing cane, with the result that the crop for this year will approximate nearly a million tons, which will equal the combined beet and sugar output of the United States.

We sailed from Callao on April 15 aboard the Chilean Coast Line's steamship *Imperial*, arriving at Mollendo two days later. There has been no port development at Mollendo, all passengers being transferred by lighter. The day we arrived, however, the weather was so rough that it was impossible for even the small boats to reach the shore, so we were hauled to terra firma in baskets, a very common method of landing in that and other South American Pacific harbors. Mollendo is Peru's second most important port, much of the commerce of southern Peru and northern Bolivia passing through its gate.

Arequipa is a beautiful city, about 120 miles from Mollendo, lying in a lovely valley some 7,500 feet above sea level. It stands



ATOCHA STATION, BOLIVIA.

Terminal of the present Bolivian railway, which, when completed, will connect that country with Argentina.



MERCHANDISE AT ATOCHA STATION.

These goods are waiting for transshipment from Atocha to La Quiaca; destination, Argentina.



A ROADBED IN THE ANDES.

This picture, taken at kilometer 32.7, gives some idea of the huge task before the builders of the trans-Andine railroad through the rocks of these Andean passes.

at the foot of Mount Misti, an extinct volcano. It is a very religious place, and as we had the good fortune to arrive there on Good Friday, we were able to witness a full display of the religious tendencies of the populace. Processions seemed to follow one another in endless succession, the crucifixion being exemplified in every form. Near Arequipa is located the Harvard observatory, this region having been chosen because of the extraordinary clarity of the atmosphere, which permits unusually fine observation.

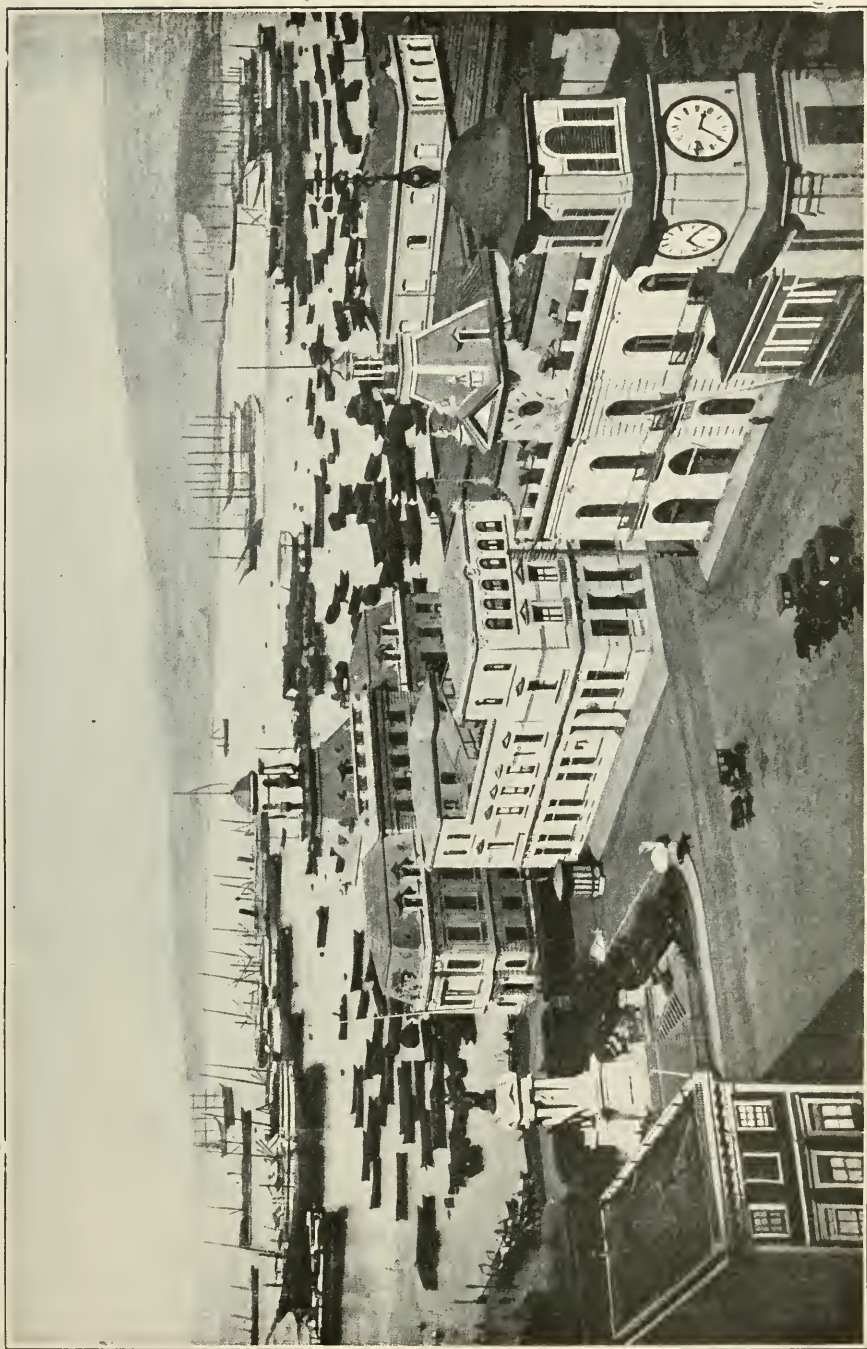
Traveling from Arequipa to Cuzco, one passes through Juliaca, the junction point for Puno, on Lake Titicaca, and between Juliaca and Cuzco one crosses the height of land where the waters flow one way to the Atlantic and the other way to the Pacific. Beyond this the soil becomes very fertile, but because of the mountainous character of the country the natives have to farm on the terrace plan, as is done in Japan. We spent two days at Cuzco, visiting the University of Cuzco and its president, Dr. Albert A. Giesecke, a North American and a former professor of the University of Pennsylvania, under whose guidance we viewed the ruins to excellent advantage.

We reached Puno, on Lake Titicaca, on April 24. Lake Titicaca is the largest body of fresh water in South America, and in point of altitude is unsurpassed by any navigable lake in the world, being 12,500 feet above sea level. It has an extreme length of 145 miles and an extreme breadth of 69 miles, its shore line being broken and irregular. Its average depth has been estimated to be 492 feet. In Lake Titicaca is the "Island of the Sun," where came into existence by sudden metamorphosis, Manco Capac, and his sister and wife, Mama Oella, the founders of the Inca Empire—that Empire which, in its hours of glory, extended from far away Colombia on the north to Chile and Argentina on the south. Ten miles distant lies Tiahuanacu, the seat of pre-Inca civilization, whose megalithic monuments are surpassed only by the mighty monoliths of ancient Egypt.

Splendid vessels, some of them 1,200 tons gross register, ply this inland sea. The boat on which we traveled had sleeping accommodations for 125 people, and in equipment and service was equal to any of our inland craft. Most of these ships are constructed at the Puno Shipbuilding Plant, although some of them have been brought from England in sections and assembled on the shores of the lake.

After a night's sail we arrived at Guaqui, a distance of 110 miles, where we took the train for La Paz, a journey of four hours. Ten miles from Guaqui is Tiahuanacu, the site of the ancient village alluded to above.

In my opinion the mineral resources of Bolivia are greater than those of any other country. Her exports of tin have increased more than 100 per cent since the beginning of the Great War, while the development of her other mines, especially manganese, wolfram, and silver, has been enormous. Her rubber industry, too, has found new



A PORTION OF VALPARAISO AND THE BAY.

Having removed all traces of the earthquake of 1906, Valparaíso is growing rapidly and, next to San Francisco, is the largest American port on the Pacific.



A CORNER OF THE PLAZA DE ARMAS, SANTIAGO, CHILE.

This square, laid out by the founder of the city 377 years ago, is still popular on balmy evenings. Santa Lucia Hill and the snowcapped Andes in the distance are shown in the background of the picture.

life, while agriculture has also made material advances, especially the growing of sugar. Before the Spaniards were driven from the country they recovered \$6,000,000,000 worth of silver, over half of which came from the mountain of Potosi, the richest silver mine the world has ever known. The largest nugget of gold yet uncovered was a Bolivian product; it weighs 760 ounces troy and now rests in the museum of Madrid.

Because of the great mountain range that has separated settled Bolivia from its plains, the country has had to depend for its supplies of food and lumber on imports from other lands. Its sugar has come largely from Peru, its wheat and meat largely from Argentina, and its lumber from the United States. The extension of railroad lines, which is proceeding rapidly, however, will soon make available the products of its wonderful forests where grow hardwoods of every kind, and of its plains where range thousands upon thousands of cattle with practically no market value at present.

On my Bolivian visit I traveled over all of the railway lines with the minister of finance, Señor don José Luis Tejada Sorzano, visiting the tin, silver, and copper districts, and obtaining a personal opportunity to appreciate the magnificent possibilities of the country. The minister left our party at Ollague, and we continued on to Chile on the Antofagasta & Bolivian Railway, stopping at Calama to visit the famous Chuquicamata property of the Guggenheims. This is one of the largest copper mines in the world, producing over \$35,000,000 worth of copper annually. As a silver and copper mine this property has been operated for more than 500 years, the Indians having worked it prior to the coming of the white man.

From Calama we proceeded to Antofagasta, passing through the famous nitrate fields, which supply 70 per cent of the world's demand for this mineral. Owing to the sudden cessation of the war these mines are experiencing a period of depression compared with their war activity, and Chile is deporting the labor that has been working in them, sending the Peruvians home and the Chileans to the southern part of the country, where labor is greatly in demand. An idea of the tremendous importance of the Chilean nitrate industry under war conditions can be gained from the statistics for the year 1916, which show 2,912,893 tons mined and a monetary value of no less than \$330,000,000.

We left Antofagasta on the *Santa Luisa* of the Grace Line on May 18, arriving at Valparaiso on the 20th. We spent two delightful days in Valparaiso, which is beautifully situated on the shores of a lovely bay, the buildings of the city clinging to the hills which surround it as though for support. Valparaiso has a population of 200,000 people, and is the greatest port of the Republic. It is growing very fast, and has quite outlived the evidences of the great earthquake of 1906, in which 3,000 people were killed and the homes



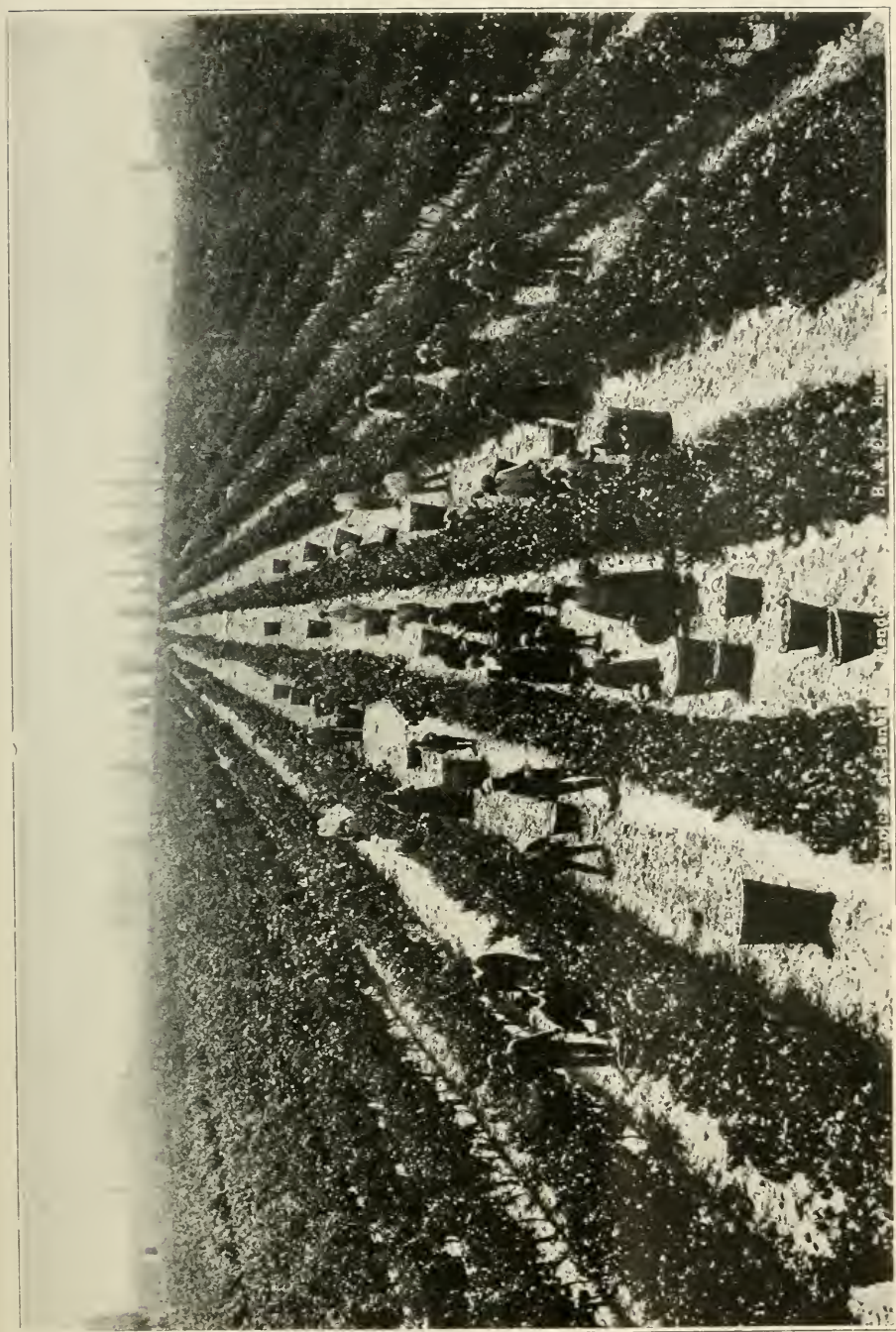
AFTER LEAVING THE INTERNATIONAL TUNNEL.

Proceeding by mule train through the deep snow on the Argentine side. This is on the Uspallata Pass, the bold highway over which mail was carried before the building of the trans-Andine railroad, just over the great tunnel on the way to Punta del Inca.



PEAKS OF THE ANDES, CHILE.

This is near Las Cuevas on the trans-Andine railroad, and the famous mineral springs which are the source of the Cuevas River, and were known to the Incas long before the coming of the Spaniards.



A VINEYARD OF MENDOZA, ARGENTINA.

Situated 651 miles from Buenos Aires and 2,640 feet above sea level, nestling at the foot of the Andes, this city has 40,000 inhabitants and is in the heart of the great grape-growing section of western Argentina, with an annual output of 3,180,000 gallons of wine.

of nearly 100,000 destroyed. The city has many English residents, who, naturally, have left an impression on its customs.

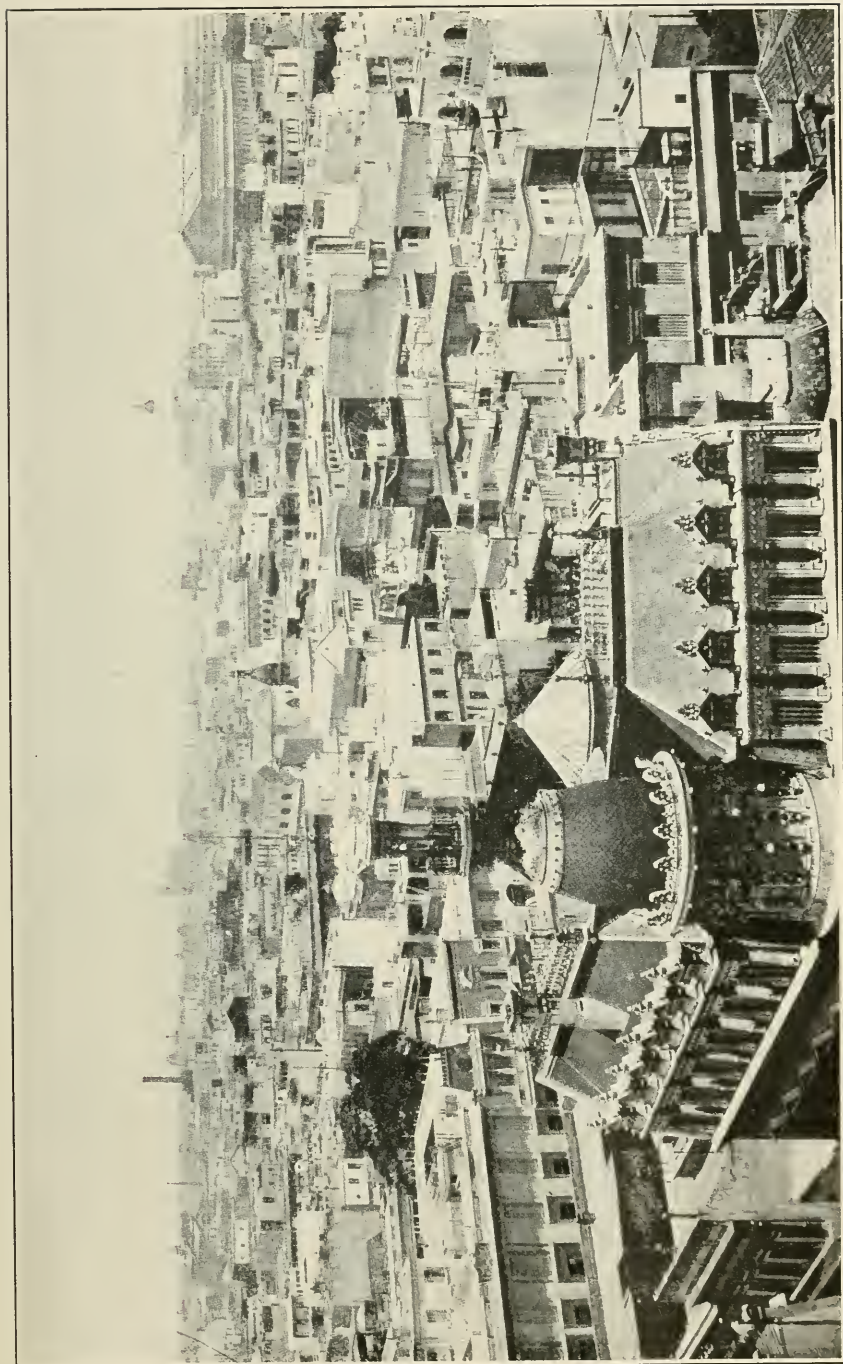
From Valparaiso we went to Santiago, a four-hour journey. The delightful capital of the country in point of population is one of the largest cities in South America, having over 400,000 residents. Standing in a veritable garden, 1,700 feet above sea level, it nestles in charming seclusion at the foot of the mighty Andes, which tower above it in seemingly never-ending succession. Aside from its beautiful tree-lined avenues and its palatial homes, perhaps the greatest attraction of Santiago is its splendid race track, one of the best in the world. Another is Santa Lucia Hill, a natural, perpendicular rock, rising 400 feet in the heart of the city, which, although improved by esthetic adornment, still retains its natural grandeur. Altogether Santiago is one of those cities which, but for one's sense of duty, might win one to linger indefinitely.

While in Chile I made a careful study of Chilean conditions, and, as in the case of Peru and Bolivia, I was deeply impressed with the many indications of national prosperity and the opportunities offered. As I have stated, the nitrate industry is in rather an inactive state, but the war gave it an impetus far beyond the normal, resulting in a production many times in excess of the world's requirements for agricultural and other peaceful pursuits. With the coming of peace there will no doubt be a greater activity in agriculture throughout the world, which will place this industry once again on a sound economic basis.

We left Santiago on June 11 by way of the Chilean Government Railway, and arrived at the city of Los Andes, the terminus of the Chilean Transandine Railway, four and a half hours later. Then we were in a quandary. There had been an unprecedented snowfall in the Andes, and the line east of the divide was closed entirely to traffic and had been since May 12, and it looked as though it would be impossible to proceed. Finally, through official courtesy, arrangements were made by which our party was to be transported across the divide by mule train.

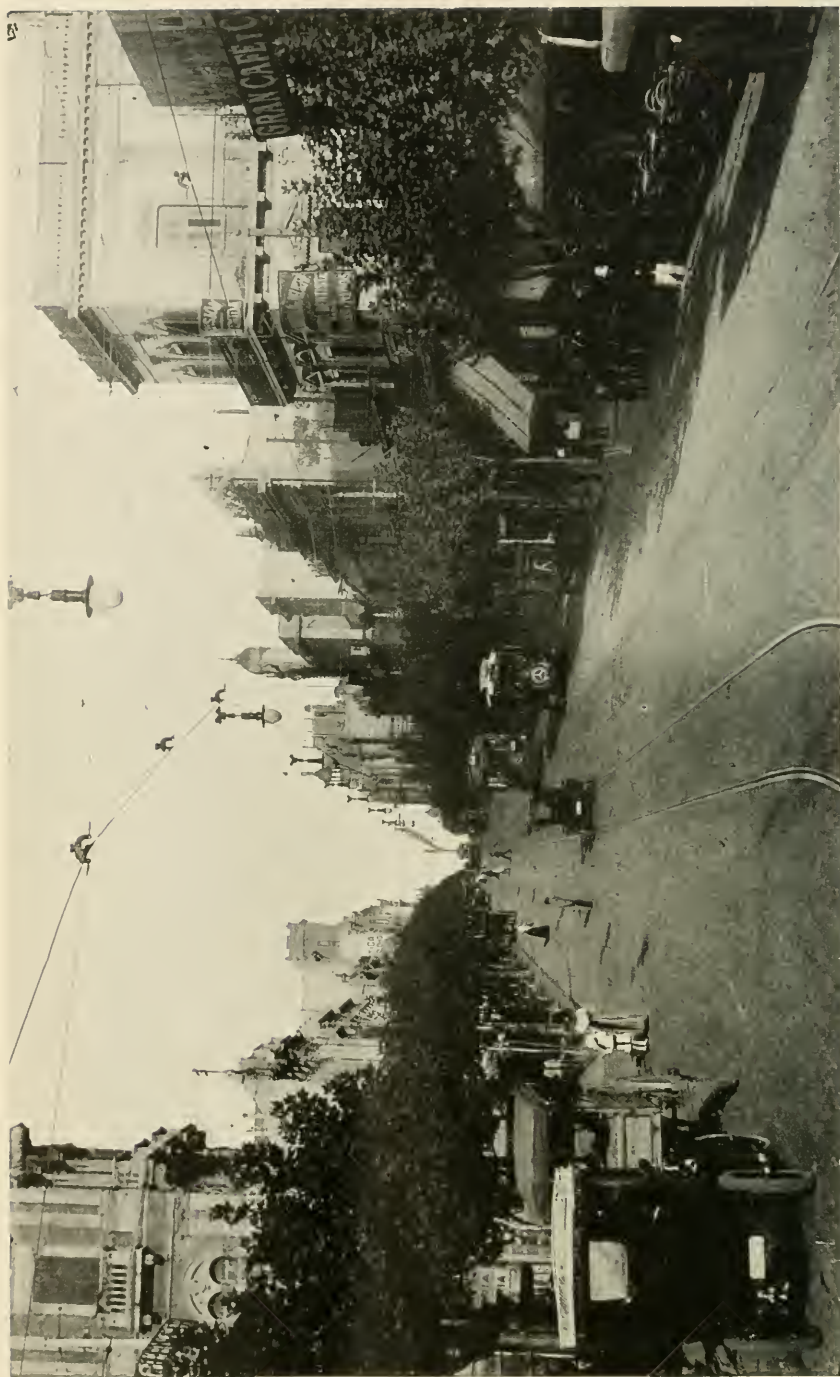
We left Los Andes, a beautifully situated and attractive town, by rail, proceeding eastward toward our Atlantic coast destination, Buenos Aires, following the course of the Salto River. Reaching kilometer 66, five miles from the international tunnel which surmounts the Cumbre Pass, we ran into impassable snow and had to proceed by mule. Our progress was very slow, as the drifts in places were 36 feet deep. We started from kilometer 66 at noon, passing through the tunnel at about 3 o'clock. This tunnel, which divides Chile from Argentina, is one of the greatest engineering works of the world, being nearly 2 miles in length.

High on the summit of the Cumbre Pass stands, in magnificent perspective, a heroic figure of the Christ, His cross in one hand and



A SECTION OF BUENOS AIRES.

Founded in 1535, this city has made a remarkable record for progress and has become the largest city of South America. Its public buildings are of most modern construction; its race course is the finest; and the Colon Theater (near the upper right-hand corner) is one of the largest opera houses in the world.



THE AVENIDA DE JULIO, MONTEVIDEO.

This noted street of the Uruguayan capital is about 2½ miles in length, bordered by many important buildings and handsome residences

His other outstretched, the boundary monument between the two Republics, and a permanent mutual pledge that the two peoples shall forever live in peace. Carved on the monument is this inscription:

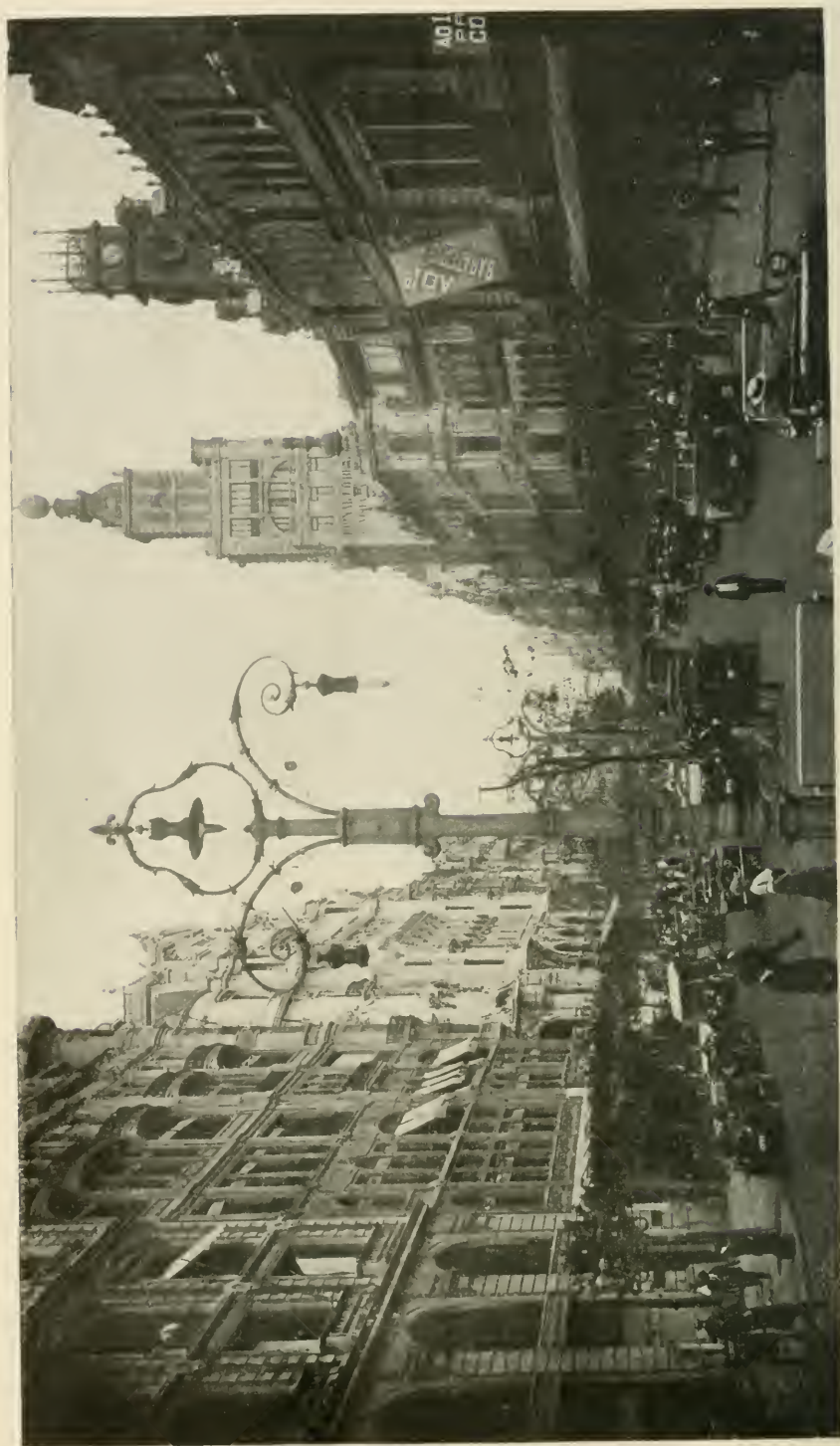
Sooner shall these mountains crumble into dust than the people of Argentina and Chile break the peace which they have sworn to maintain at the feet of Christ the Redeemer.

One comes out of the tunnel just before reaching Paramillo de Las Cuevas, where we spent the night in a peon's hut. Starting on our journey across the summit in the morning, we traveled all day, feeling the cold acutely in spite of our heavy wraps, as the temperature was below zero. We were glad indeed to reach Puente del Inca, the great hot springs of Argentina. There is a splendid hotel, modern in every respect, at Puente del Inca, fully comparable with the health resorts of either Europe or America. From here it is customary for those who love to climb to start their expeditions to Mount Aconcagua, which, rising to a height of 23,200 feet, eternally draped in snow, is the highest mountain in the New World.

From Puente del Inca we proceeded to Mendoza, a 5-hour journey by rail. Mendoza is the great wine center of Argentina. In this connection I would like to pay tribute to the general quality of the Argentine wines, which are equal in every respect to the clarets and light wines of France. Mendoza is a city of some 50,000 people and is very picturesquely situated, possessing one of the finest parkways I have ever seen. Its hotel deserves special mention, as good hotels are the exception rather than the rule in South America. This city is the headquarters of the Western Province of Argentina for many English and foreign banking institutions, whose buildings add greatly to the appearance of the city.

We spent the night at Mendoza, and, leaving it at 1.30 in the afternoon of June 17, arrived at Buenos Aires at 3.30 the following day, traveling over the line of the Buenos Aires & Pacific Railway. The cars on this road are of the English type, being very comfortable, and the service for the most part is everything that one could desire. This part of our journey was especially enjoyable to me, as our course lay through the great wheat-growing and cattle-raising pampas, which have been the foundation of Argentina's great development and wealth. We spent two weeks in Buenos Aires, and on Independence Day were fortunate in being guests at a banquet at the Palace Hotel given by Ambassador Frederick Jessup Stimson to 300 representative Americans.

Buenos Aires is the first city of South America. A metropolis much resembling Paris both as to architecture and boulevards, it has a population of more than a million and a half. The race course is the finest in the world, while its public buildings, hotels, newspaper edifices, and theaters are the last word in modern construction. The Colon opera house is architecturally finer than even the Metro-



THE AVENIDA RIO BRANCO, RIO DE JANEIRO.

This beautiful avenue passes through the city's shopping district and is crowded with people and vehicles day and night. It crosses at right angles, very near this point, the famous shopping street long known as Rua do Ouvidor, renamed Mourira Cesar

politan in New York. There are many wealthy people in the city, and this wealth is reflected in the residences, many of which are superb. As far as economic conditions are concerned, land values in Argentina seem exorbitantly high, and although crops have been splendid, lack of adequate tonnage has prevented the marketing of a very large exportable surplus, with the result that millions of bushels of wheat are actually spoiling in the public warehouses.

The July 4 celebration marked the eve of our departure from Buenos Aires. We left for Montevideo on July 5, arriving there on the 6th.

Montevideo is a most cosmopolitan city, and is the Monte Carlo of South America. It is a distinctly commercial city, and as a port of trade is very important. Ships of an aggregate of more than 1,000,000 tons anchor in its harbor annually. More than \$20,000,000 have been spent in the harbor improvements already, and each year sees an additional expenditure. The city has a population of 400,000 and is growing rapidly.

Of all the countries in South America, Uruguay at present is perhaps the most prosperous. This condition is due to the great development it has experienced in the past few years, especially since the war. Uruguay has a population of 1,400,000 people and an area of 72,000 square miles. It is not very large compared with other lands, but it is doubtful if anywhere in the world there can be found a region with land so uniformly fertile. Cattle raising is the most important pursuit of the people at this time, and accounts for more than 90 per cent of the exports. Grain raising, for which the soil is splendidly adapted, is however, gaining annually in importance, and it is believed by many that the time is not far distant when it will have superseded the grange cattle industry almost entirely.

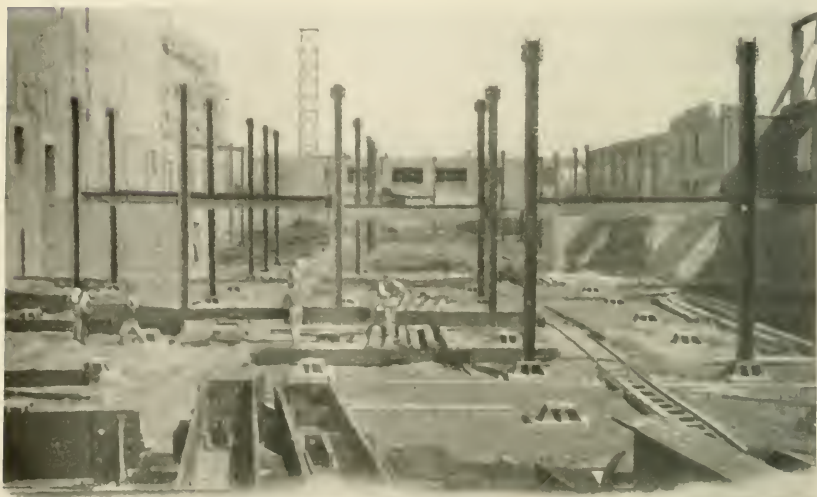
One of the great advantages of Uruguay is its splendid system of waterways, providing ready intercourse between all sections of the Republic. The climate is wonderfully uniform, the mean temperature ranging from 70° in summer to 52° in winter. The opportunities for North American activity in Uruguay are, I think, unlimited. Before the war England and Germany had the bulk of the trade, but in the last two or three years we have become firmly established, and as the people of the country are very favorable to us, there would seem to be no reason why we should not be able to maintain our position after normal conditions have been restored.

Leaving Montevideo on July 9, on the *Highland Rover* of the Nelson Line, we arrived at Rio de Janeiro, Brazil, on the 14th. The harbor of Rio de Janeiro is said to be the most beautiful in the world. Flanked by mighty hills, which stand as though to guard it from the encroachments of the sea, the harbor, circling in the form of a crescent, swarms with the craft of all nations. And the city itself is as beautiful as the harbor. Everywhere one sees evidences of lavish expenditures.



ARMOUR & CO.'S NEW PLANT NEAR SÃO PAULO.

It is said that this will be the largest individual abattoir in the world and is a forerunner of North American enterprise and investment in the development of Brazil's meat industry.



STEEL GIRDERS OF THE NEW ARMOUR PLANT.

Details of the building of this new plant, which will cost when finished approximately \$10,000,000.

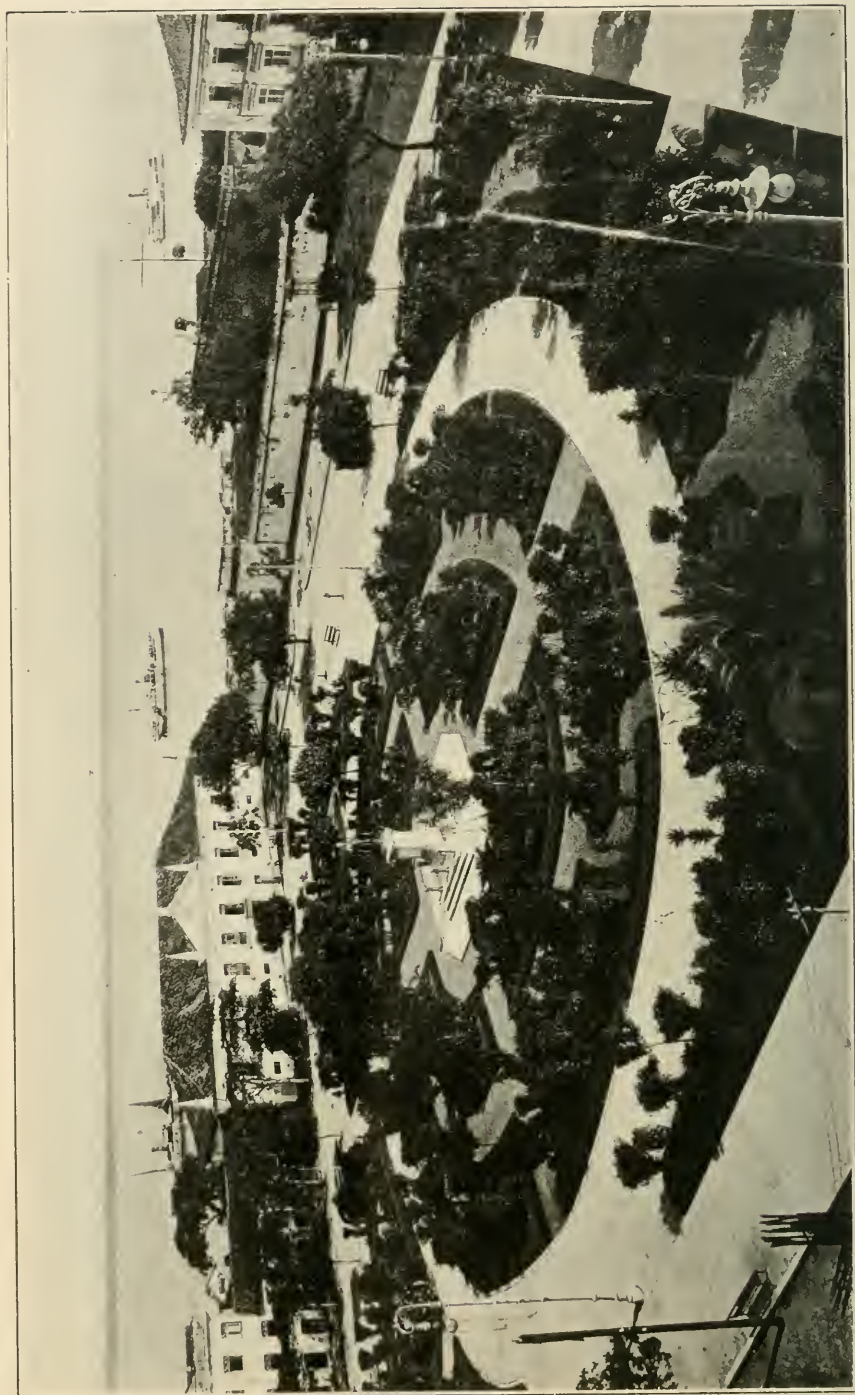
Public buildings, residences, boulevards, parks, and streets, all suggest the wealth and opulence of the great and scarcely explored empire of which it is the metropolis. Then there is the city's natural beauty. The center of a tropic land, the flowers and palm bloom at their best. Perhaps no city in the world has more completely conserved its natural advantages, the while developing its commercial possibilities. It has many fine parks, extensive botanical gardens, and other points of attraction and interest. Among these may be mentioned a peculiar mountain of granite locally known as Sugar Loaf, which rises precipitously to a height of 1,290 feet. It is the great guardian of the harbor and is ascended by means of a cable car. From its summit one is able to obtain a magnificent panoramic view of the city and surrounding country. Rio de Janeiro has a population of more than 1,000,000.

While in Rio I paid a flying visit to São Paulo, which is reached by a double track, standard-gauge railroad, of very modern English type. The trip takes 12 hours, but being a night journey fatigues one but little. The line passes through a very highly cultivated and productive region which gives the railroad a substantial and steady revenue. São Paulo has many attractions as a place of residence and has a population of 500,000. Here, by the way, is situated the government laboratory for producing the serum which is used to inoculate the natives against snake poison, which has resulted in saving thousands of lives annually.

São Paulo is the capital of Brazil's most productive State—a State which, in addition to a greatly diversified agriculture, unlimited forest reserves, and huge, untouched mineral wealth, grows more than one-half of the coffee of the world. Two hours from the city, by train or moter, is Santos, the harbor for the State of São Paulo, and the port through which most of the Brazilian coffee reaches the world. We went to Santos by automobile, and there is no finer scenic highway anywhere. For miles the way leads over a high plateau region, then descending abruptly, the road follows the coast until it reaches Santos.

The port facilities of Santos are, perhaps, the most modern in South America. There is a single 3-mile dock, built of solid concrete and steel, and to this the largest ships in the world can come. These docks have a splendid auxiliary warehouse system, and the cargoes are handled by a modern automatic equipment.

Near Santos is located the most famous seaside resort of all Brazil—Guaruji—which in the summer time is almost as popular as the resorts of our own Atlantic coast. Guarui possesses one of the most modern hotels in South America, and its casino, where gambling is openly permitted, is the rendezvous not only of the votaries of chance, but for a great part of Brazil.



A PLAZA IN PARA, BRAZIL.

The port through which most of the Brazilian rubber is shipped, Para is situated 100 miles from the mouth of the Amazon and is rapidly growing in importance as a cosmopolitan city.

In my opinion Brazil has a wonderful future. More than 200,000 square miles larger than the United States, it embraces within its borders untold millions of acres of fertile prairie lands, illimitable forests, and inexhaustible mineral deposits. Its river systems are the greatest of the world, the mighty Amazon and its tributaries being navigable for thousands of miles. The people are energetic and progressive and extremely pro-American. There are already to be seen tangible evidences that North American industry is aware of the opportunities in this great Republic. At São Paulo, for instance, Armour & Co. are putting up a \$10,000,000 plant, which should guarantee to the interests of this country a dominant position in the meat industry of Brazil, which is growing very fast. And in spite of the present high prices of coffee, caused partly by the action of the Government in underwriting the purchase of the surplus crop against a day when it could be marketed at a profit, there are at present huge coffee reserves on hand, and the Government expects that the demand of Europe, particularly that of the Central Powers, will be so great that it will be able to dispose of them without any effect on present coffee prices. The coffee growers, too, anticipate a large increase in coffee consumption in the United States as a result of prohibition.

We left Rio on July 29 on the Lamport & Holt steamship *Byron*, for Para, a hundred miles up the Amazon, and the port through which most of the rubber of Brazil is shipped. Para is developing, and, although not as modern as some South American cities, is gradually showing the impress of civilization. In common with other big Brazilian ports, its docking system is very good, but its sanitary system is in need of improvement. The streets are paved with cobblestones but are quite passable, and there is a street-car system and other facilities. The public buildings are very fine, being substantial and modern.

This part of the country is very much in need of railroads, but the building of them is a difficult matter. They have to compete with the water highways, which penetrate to every section, offering economical if not speedy communication. Probably it will be possible to build railroads on an extensive scale only when the country has been more developed. Just now this region is undergoing a transition. Ten years ago 60 per cent of the world's supply of rubber was produced from the mighty forests of the broad Amazon and its tributaries, but in the last decade the cultivation of the rubber tree has been so encouraged by the British Government in her eastern possessions, and has gained such impetus in Sumatra and other regions, that South America has been unable to hold its supremacy.

We remained two days in Para before starting on our homeward trip, which was interrupted only by a stop at Bridgetown, the capital of the Barbados Islands, for coal.

LATIN AMERICAN FOREIGN TRADE IN 1918—A GENERAL SURVEY.

Countries.	Imports.			Exports.			Total foreign trade.		
	1917	1918	Increase.	1917	1918	Increase.	1917	1918	Increase.
Mexico.....	1 \$128,000,000	\$82,235,019	2 \$45,764,981	1 \$180,000,000	\$183,632,725	\$3,632,725	1 \$308,000,000	\$205,887,744	2 \$42,112,256
Guatemala.....	8,901,573	6,534,000	2 2,367,573	7,809,732	11,319,000	3,509,268	16,801,305	17,653,000	1 151,695
Salvador.....	6,899,276	5,679,700	2 1,219,576	16,050,400	12,032,005	2 3,997,705	22,019,676	18,023,305	2 4,896,371
Honduras.....	6,263,162	1,600,000	2 4,663,162	8,030,177	9,000,000	969,823	14,323,339	15,000,000	2 776,661
Nicaragua.....	6,397,068	5,129,802	2 1,267,266	5,975,256	7,754,940	1,779,684	12,368,324	13,684,742	1 316,418
Costa Rica.....	5,595,240	3,735,023	2 1,860,217	11,382,166	9,623,874	2 1,758,292	16,977,406	13,358,897	2 3,618,509
Panama.....	9,223,170	7,821,660	2 1,401,510	5,621,176	3,275,824	2 2,345,352	14,847,346	16,721,060	1 1,874,314
Cuba.....	271,279,814	207,622,214	2 69,657,600	366,771,945	413,325,251	46,553,306	638,031,759	710,447,465	72,895,706
Dominican Republic.....	17,400,064	19,736,152	2 2,336,088	22,441,580	22,372,344	2 72,236	39,844,644	42,108,496	2 2,263,852
Haiti.....	5,606,085	110,500,000	1 104,893,914	7,220,280	11,000,000	3,779,720	15,826,376	121,500,000	5,673,624
North American Republics.....	468,651,453	446,284,570	2 22,366,883	631,308,722	689,000,739	57,692,017	1,069,940,175	1,135,285,309	35,325,134
Argentina.....	368,911,543	485,582,000	116,670,457	523,664,948	777,358,000	253,693,052	902,576,491	1,262,940,000	360,363,509
Bolivia.....	13,057,524	13,649,956	592,432	61,521,741	71,219,012	9,697,271	74,579,265	84,868,968	10,289,703
Brazil.....	215,298,653	259,224,000	43,925,347	300,388,943	297,020,271	2 3,368,672	521,087,596	557,144,277	35,456,681
Chile.....	129,603,115	159,167,034	29,563,919	259,985,465	291,803,277	31,817,812	389,588,610	451,030,311	61,441,701
Colombia.....	26,047,752	122,000,000	2 4,097,752	31,892,672	135,000,000	3,107,328	57,990,424	157,000,000	2 990,424
Ecuador.....	10,176,887	1,800,000	2 376,887	16,309,105	118,000,000	1,690,805	26,186,082	127,800,000	1 313,918
Paraguay.....	8,002,123	10,720,073	1,817,950	11,303,862	11,037,721	2 206,141	20,265,985	21,777,794	1,511,809
Peru.....	65,623,856	162,000,000	2 3,023,856	90,606,907	1,020,000,000	1,393,003	155,230,853	1,154,000,000	2 2,260,853
Uruguay.....	38,700,720	37,000,000	2 1,700,720	96,216,925	105,000,000	8,783,075	134,917,045	142,000,000	7,082,955
Venezuela.....	22,188,223	321,200,000	2 988,223	23,184,702	324,200,000	1,015,298	45,352,925	315,400,000	47,075
South American Republics.....	895,560,396	1,080,345,669	184,785,273	1,431,115,480	1,723,618,281	292,502,801	2,329,675,876	2,803,961,350	474,285,474
Total Latin America.....	1,367,211,849	1,526,627,639	159,415,790	2,062,424,202	2,412,619,020	350,194,818	3,429,636,051	3,939,246,659	509,610,608

1 Estimate.

2 Decrease.

3 Partially an estimate.

LATIN AMERICAN FOREIGN TRADE IN 1918--GENERAL SURVEY

THE foreign commerce of the 20 Latin American Republics for the year 1918 amounted to \$3,939,246,659, an increase of \$509,610,608 over the preceding year. The imports increased \$159,415,790; that is, from \$1,367,211,849 in 1917 to \$1,526,627,639 in 1918. The exports increased nearly twice as much—\$350,194,818—that is, from \$2,062,424,202 to \$2,412,619,020.

It is interesting to compare the figures above for the year 1918, which marked the closing of the war, with the year 1913, the last full year before the war began.

All Latin America.

	Imports.	Exports.
1918	\$1,526,627,639	\$2,412,619,020
1913	1,321,816,199	1,552,750,952
Increase.....	204,811,440	\$89,868,068

It will be seen that there was an increase in the value of the exports of nearly \$860,000,000 and an increase in imports of nearly \$205,000,000. Owing, however, to the fact that in several of the countries, especially Argentina and Bolivia, a radical change was made in the method of computing values of imports, resulting in a very large increase in total valuations, nearly enough in these two countries alone to offset the total increase as shown above. In reality, therefore, there was but little or no increase in the values of Latin American imports in 1918 as compared with 1913, and when one takes into account the enormous increase in world values of all commodities, there was a very considerable decrease in total importations by quantities for 1918 as compared with 1913. On the export side the same world-wide increase of prices was effected. It can be stated therefore that the increase of \$860,000,000 in export values, which represents an increase of about 55 per cent over the year 1913 (in this case there was no substantial change in methods of computation) does not represent by any means so large an increase in exports by quantities. A conservative statement of the increase by quantities would probably not exceed 10 per cent.

The increase in the price of some Latin American exports, particularly grain, meats, and sugar, was very large; the increase in other exports—for example, metals, coffee, tobacco—was much smaller. On the whole the estimate of 10 per cent increase in quantities as being equivalent to 55 per cent increase in values is no doubt as near as can be arrived at.

The imports of the 20 countries for the four years before the war, 1910 to 1913, inclusive, amounted to, \$1,103,798,596, and the exports to \$1,467,411,679. The trade during the four years of the war, 1915–1918 inclusive, was: \$1,600,140,001, exports, \$2,410,489,620. The increase in imports was \$496,341,405, and in exports, \$943,077,941.

Separating the countries into two groups as in the main tables herewith published, and making the same comparison of the four years before the war and of the four years during the war, we arrive at the following results:

Northern group, ten countries.	Imports.	Exports.
Four years before the war:		
1910.....	\$247,687,053	\$336,962,401
1911.....	272,532,283	341,131,961
1912.....	282,026,482	396,537,731
1913.....	301,552,778	392,779,586
Total.....	1,103,798,596	1,467,411,679
Four years during the war:		
1915.....	285,555,355	481,734,975
1916.....	399,648,623	608,445,184
1917.....	468,651,453	631,308,722
1918.....	446,284,570	689,000,739
Total.....	1,600,140,001	2,410,489,620
Increase during war.....	496,341,405	943,077,941
Per cent.....	45	64
Southern group, ten countries.		
Four years before the war:		
1910.....	\$810,973,196	\$949,238,809
1911.....	886,958,233	942,100,679
1912.....	960,186,096	1,176,995,576
1913.....	1,020,308,421	1,159,971,366
Total.....	3,678,725,946	4,228,306,430
Four years during the war:		
1915.....	524,370,345	1,176,734,326
1916.....	641,613,555	1,258,521,443
1917.....	898,560,396	1,431,115,480
1918.....	1,080,343,069	1,723,618,281
Total.....	3,144,287,365	5,589,989,530
Increase during the war.....	534,438,581	1,361,683,100
Per cent.....	14	32

¹ Decrease.

These figures show a rather remarkable difference between the two groups as affected by the war. The imports of the northern group increased 45 per cent, nearly \$500,000,000, while the imports of the southern group decreased more than 14 per cent, over \$500,000,000.

The increase in prices does not affect the comparison of the four years before the war, and the four years during the war to the same extent as the comparison of the single years 1913 and 1918 given above, the increase being progressive, from 1915 to 1918. The 45 per cent increase in values in the imports of the northern group does, in all probability, represent an actual increase in importation by quantities of not less than 20 per cent. On the other hand, the decrease of 14 per cent in the southern group, represents a decrease in quantities of at least 35 per cent. In other words, the imports of the northern group increased during the four years of the war about one-fifth, while the imports of the southern group decreased during the same period about one-third.

In reality, the trade status of the northern group as compared with the southern group, especially on the side of imports, was much more favorable to the former than the figures given above would denote. This is due to the present status of the official statistical reports of Mexico in the northern and of Argentina in the southern group. The change in the method of valuation of imports in Argentina (more or less followed by Paraguay, Uruguay, and Bolivia) from "customshouse" to "real" bases, has resulted in destroying the comparative value of Argentine statistics to a much larger degree. The figures for Argentina's imports given in the tables printed herewith for 1917 and 1918 are "real values," while the figures for the preceding years are all "customs values," and the "real values" exceed the customs values from 50 to 100 per cent. The result is that in a comparative estimate such as the above the figures for the latter years are inflated, or more correctly, and what is the same, the figures for the former years are deflated.

The recent official report issued by the Mexican Government for the year 1918, showing the total of imports at a little over \$82,000,000, is manifestly incorrect. By no possible calculation, could Mexican imports in 1918 be less than \$105,000,000 or \$110,000,000. United States statistics for the year 1918 show exports to Mexico (Mexican imports) of nearly \$98,000,000. Of course, statistics can not and should not be reversed, since valuations are not made upon the same basis, but the difference between Mexican and the United States methods of computing values, is not so great as to account for this large discrepancy. On the whole, therefore, in order to arrive at a correct comparative view, the imports of the northern group for the four years during the war should be increased by at least \$25,000,000 or \$30,000,000, and the imports of the southern group for the same period should be decreased by at least \$100,000,000.

The effect of the war was not the same in all the countries of the northern group, nor was it the same in all the countries of the south-

ern group, as touching importations and exportations, but, generally speaking, the countries of the northern group (except two or three of the smaller Central American Republics) all gained in both imports and exports, and the countries of the southern group lost in imports and some lost in exports.

The figures for Cuba in the northern group and Brazil in the southern group are as follows:

CUBA.

	Imports.	Exports.
Four years before the war:		
1910.....	\$103,675,581	\$150,909,020
1911.....	113,266,997	123,136,379
1912.....	125,902,241	172,978,328
1913.....	143,758,736	164,823,059
Total.....	486,603,555	611,846,786
Four years during the war:		
1915.....	155,448,233	254,291,763
1916.....	248,278,279	356,571,350
1917.....	271,279,814	366,771,945
1918.....	297,622,214	413,325,251
Total.....	972,628,540	1,390,960,309
Increase during the war.....	486,024,985	779,113,523
Per cent.....	100	127

BRAZIL.

Four years before the war:		
1910.....	\$235,574,837	\$310,006,438
1911.....	257,164,128	325,271,614
1912.....	308,243,736	362,794,846
1913.....	326,428,509	315,164,687
Total.....	1,127,411,210	1,313,237,585
Four years during the war:		
1915.....	146,082,483	257,176,851
1916.....	194,582,153	272,853,201
1917.....	215,298,653	306,388,942
1918.....	259,224,006	297,920,271
Total.....	815,187,295	1,134,339,266
Decrease during the war.....	312,223,915	178,898,319
Per cent.....	28	13

In values Cuba doubled its imports during the war, and more than doubled its exports, while Brazil decreased its imports by more than one-fourth and its exports by more than one-tenth. If we discard values and consider quantities alone, Cuba increased its imports by two-thirds or three-fourths, and its exports by a somewhat larger percentage. On the other hand, Brazil decreased its imports by nearly one-half and its exports by about one-third.

CHARACTER OF IMPORTS AND EXPORTS.

The bulk of imports of the Latin American Republics are manufactures ready for consumption. Of commodities not so comprehended, the chief are lumber, gold, mineral oils, iron and steel

construction material, flour, canned foods, and some unwrought iron, steel, copper, and other metals. In the more highly manufactured food products the chief are, edible oils, preserved meats, fish, sweets and jams, edible pastes, spices and condiments, wines and liquors. Northern fruits, fresh or in dried or other preserved states, are salable in all countries. Wheat flour is one of the chief articles of import in all of the countries north of Uruguay on the east coast and Chile on the west coast. Argentina and Uruguay are large exporters of flour, and Chile produces about what it consumes. These last-mentioned countries, are all large importers of sugar.

Of the manufactured articles not food, which comprise the bulk of imports, the range is very large; and as a general rule the imports are the same in all the countries, covering generally all finished products used in Europe or the United States. Textiles, clothing, leather manufactures, furniture, household utensils, office appliances, tools, hardware, machinery, especially of the lighter kind, agricultural implements, mining supplies and tools, engines, motors, glassware, electrical apparatus, paper, etc.

On the export side there is, however, a wide divergence between the exports of one country and those of another, although in general all of these exports may be classified as raw materials and primary food products. With the exception of Argentina, Uruguay, and Chile, food exports in general are tropical or subtropical products, such as coffee, cane sugar, cacao. The food products of the three countries, Argentina, Uruguay, and Chile, are, however, of the same character as the food exports of the United States, meats and grain. The principal exports of the countries are as follows:

Mexico.—Gold, silver, antimony, mercury, copper, lead, zinc, mineral oils, sisal, hides, and skins. There are some exports of rubber, woods, peas, and beans.

Guatemala.—Coffee, hides, woods, bananas.

Salvador.—Coffee, silver, gold, indigo, sugar.

Honduras.—Gold, silver, bananas.

Nicaragua.—Coffee, woods, rubber, sugar.

Costa Rica.—Coffee, bananas, gold, silver.

Panama.—Bananas, ivory nuts, coconuts, rubber.

Cuba.—Sugar, molasses, distillates, tobacco, iron and copper ore, woods, fruits, hides, and skins.

Dominican Republic.—Sugar, cacao, tobacco, coffee, bananas, hides.

Haiti.—Coffee, cacao, honey, cotton, cotton seed, logwood.

Argentina.—Frozen beef and mutton, hides, wool, sheepskins, goatskins, bristles, canned meats, beef scrap, tallow, butter, grease, bones, wheat, flour, corn, linseed, oats, hay, bran, and quebracho.

Bolivia.—Tin, silver, bismuth, copper, rubber, coco, wolframite.

DISTRIBUTION OF TRADE—IMPORTS.

LATIN AMERICAN IMPORTS FROM LEADING COMMERCIAL COUNTRIES.

Countries.	Total from all countries.		United Kingdom.		France.		Spain.		United States.	
	1917	1918	1917	1918	1917	1918	1917	1918	1917	1918
Mexico.....	1 \$128,000,000	\$82,235,019	1 \$7,000,000	\$4,787,725	1 \$2,500,000	\$1,635,928	1 \$2,000,000	\$894,577	1 \$95,000,000	\$70,576,314
Guatemala.....	8,991,573	6,634,000	11,000,000	1 800,000	1 160,000	1 130,000	1 900,000	1 30,000	1 4,500,000	1 4,500,000
Salvador.....	6,869,276	5,970,700	1,680,349	1,516,660	310,151	141,659	140,806	.....	4,200,373	3,358,644
Honduras.....	6,293,102	1 6,100,000	1 200,000	1 250,000	1 50,000	1 40,000	1 25,000	.....	5,618,000	1 5,500,000
Nicaragua.....	6,393,068	5,924,802	818,614	596,869	249,339	154,324	32,407	7,990	5,171,468	4,630,657
Costa Rica.....	5,395,240	3,735,023	706,237	294,007	137,973	63,017	112,785	24,222	3,887,603	2,162,407
Panama.....	9,223,170	7,821,660	888,365	666,913	103,840	25,975	81,917	39,326	1,063,319	6,351,175
Cuba.....	271,279,814	297,622,214	15,377,099	9,154,567	6,289,418	7,044,221	15,631,929	10,392,529	205,104,253	222,262,276
Dominican Republic.....	17,400,064	19,736,152	603,111	529,351	190,580	99,084	193,870	48,795	14,330,351	17,037,041
Haiti.....	8,606,086	1 10,500,000	591,777	1 750,000	338,317	1 500,000	1 93,000	1 125,000	1 478,228	1 9,000,000
North American Republics.....	468,651,453	446,284,570	28,865,572	19,346,032	10,384,638	9,854,208	18,378,783	11,682,439	355,103,575	345,377,914
Per cent of imports.....	100.00	100.00	6.15	4.33	2.21	2.20	3.94	2.61	73.77	77.38
Argentina.....	368,911,543	485,582,000	80,495,246	121,250,000	21,924,568	25,220,000	26,668,136	40,546,000	133,942,372	164,415,000
Bolivia.....	13,057,524	13,649,956	1,533,921	1 1,500,000	286,400	1 250,000	239,440	1 250,000	4,355,285	1 5,100,000
Brazil.....	215,298,653	259,224,905	38,769,561	1 52,891,984	8,692,785	12,405,158	2,905,507	4,581,455	101,486,835	93,253,872
Chile.....	129,603,115	159,167,034	23,565,591	1 26,500,000	5,152,000	16,000,000	3,251,281	13,500,000	63,534,755	174,000,000
Colombia.....	26,097,752	1 22,000,000	1 6,000,000	1 7,500,000	130,000	1 700,000	1 1,000,000	1 500,000	1 14,000,000	1 12,500,000
Ecuador.....	10,176,887	19,800,000	2,453,624	13,200,000	324,510	1 400,000	508,667	1 500,000	5,492,066	1 4,800,000
Paraguay.....	8,902,123	10,720,073	2 603,000	2 680,000	134,000	2 215,000	540,700	2 750,000	1 515,004	2 2,141,000
Peru.....	5,623,856	1 62,000,000	9,402,477	19,500,000	1,094,905	1 1,100,000	1,738,038	1 1,600,000	42,732,571	1 40,000,000
Uruguay.....	38,700,720	1 37,000,000	6,054,393	2 6,200,000	1,429,274	1 500,000	2,653,037	2 4,000,000	11,069,239	2 4,500,000
Venezuela.....	22,188,223	2 21,200,000	3,733,163	2 5,200,000	949,824	2 1,000,000	1,208,537	1 2,000,000	15,561,807	1 13,000,000
South American Republics.....	898,560,396	1,080,343,069	174,732,975	236,421,984	40,288,872	48,790,158	40,773,403	56,277,455	394,070,554	418,712,872
Per cent of imports.....	100.00	100.00	19.44	21.88	4.48	4.51	4.53	5.20	43.83	38.75
Total of the 20 Republics.....	1,367,211,849	1,526,027,639	203,598,547	255,768,016	50,673,510	58,644,366	59,152,186	67,936,894	749,174,129	764,090,786
Per cent of imports.....	100.00	100.00	14.89	16.75	3.70	3.84	4.32	4.45	54.79	50.00

¹ Estimate.² Partially an estimate.

DISTRIBUTION OF TRADE—EXPORTS.

LATIN AMERICAN EXPORTS TO LEADING COMMERCIAL COUNTRIES.

Country.	Total to all countries.		United Kingdom.		France.		Spain.		United States.	
	1917	1918	1917	1918	1917	1918	1917	1918	1917	1918
Mexico.....	1 \$180,000,000	\$183,622,725	1 \$30,000,000	\$2,186,313	1 \$1,000,000	\$3,006	1 \$2,000,000	\$827,705	1 \$140,000,000	\$175,037,172
Guatemala.....	7,894,732	11,319,000	1 65,000	1 100,000	3,352,743	.....	1 35,000	1 50,000	1 7,600,000	18,100,000
Salvador.....	16,050,400	12,052,065	258,901	98,091	.....	.....	72,485	351,465	9,611,000	10,251,733
Honduras.....	8,030,177	1 9,000,000	.....	.....	19,113	1 20,000	.....	.....	7,031,281	18,000,000
Nicaragua.....	5,975,256	7,754,940	2,362	2,000	488,363	.....	45,707	10,637	5,092,469	6,412,921
Costa Rica.....	11,382,166	9,623,874	2,496,191	166,873	31,886	.....	10,719	27,846	5,119,285	18,705,786
Panama.....	5,624,176	18,900,000	7,712	18,000	.....	.....	10,539	1,000	5,327,913	18,700,000
Cuba.....	366,771,945	413,325,251	73,563,756	95,817,266	11,616,630	5,654,957	13,546,199	6,773,875	257,333,113	233,997,619
Dominican Republic.....	22,444,580	22,372,344	206,424	412,781	293,690	1 681,880	207,627	7,703,406	17,946,787	18,170,291
Haiti.....	7,220,290	1 11,000,000	61,182	1 100,000	3,023,691	1 3,100,000	1 150,000	1 200,000	3,926,553	1 6,750,000
North American Republics.....	631,308,722	689,000,739	105,661,528	98,891,327	19,826,116	9,461,813	16,068,426	9,067,918	462,906,871	544,175,522
Per cent of exports.....	100.00	100.00	16.89	14.35	3.14	1.37	2.54	1.31	73.32	78.96
Argentina.....	533,664,948	777,358,000	156,021,608	296,626,000	70,392,154	109,610,000	8,860,553	23,086,000	156,132,611	100,147,000
Bolivia.....	61,521,741	71,219,012	35,225,550	29,634,231	1,672,630	113,951	6,738	22,491,630	22,491,630	35,502,677
Brazil.....	306,388,943	297,929,271	38,370,991	30,078,155	40,405,608	26,833,107	4,088,158	6,660,320	136,911,891	103,200,831
Chile.....	239,985,495	291,863,277	55,388,670	1 58,000,000	11,657,554	1 12,000,000	1 570,057	1 1,700,000	155,000,000	1 138,000,000
Colombia.....	31,892,672	1 35,000,000	1 1,200,000	1 700,000	1 500,000	1 400,000	1 500,000	1 450,000	1 28,000,000	1 25,300,000
Ecuador.....	16,309,195	1 18,000,000	104,023	1 200,000	1 447,040	1 2,800,000	682,713	1 19,000	12,772,005	1 12,300,000
Paraguay.....	11,363,862	11,057,721	58,890	1 100,000	311,600	1 300,000	1,027,600	1 1,000,000	12,772,005	1 12,300,000
Peru.....	90,606,997	1 92,000,000	18,432,765	1 20,000,000	425,065	1 600,000	9,642	1 50,000	53,180,103	1 44,000,000
Uruguay.....	96,216,925	1 105,000,000	19,358,161	2 27,000,000	16,189,680	2 15,000,000	4,686,135	2 16,000,000	26,218,746	2 28,000,000
Venezuela.....	23,161,702	2 24,200,000	2,499,298	2 3,000,000	3,016,855	2 4,500,000	2,358,136	2 3,000,000	12,792,581	2 10,000,000
South American Republics.....	1,431,115,480	1,723,618,281	326,664,926	465,338,386	146,009,186	172,157,058	25,789,762	51,955,320	603,865,646	598,850,508
Per cent of exports.....	100.00	100.00	22.82	32.31	10.27	9.98	1.89	3.01	42.19	34.71
Total of the 20 Republics.....	2,062,421,202	2,412,619,020	433,326,451	564,229,713	165,835,302	181,618,901	41,858,188	61,023,238	1,066,772,517	1,413,026,030
Per cent of exports.....	100.00	100.00	21.00	23.38	8.04	7.52	2.02	2.53	51.72	47.37

1 Estimate.

2 Partially an estimate.

Brazil.—Coffee, rubber, beef, hides, yerba mate, cacao, tobacco, skins, sugar, gold, manganese, cotton, cotton seed, bran, monazite sand.

Chile.—Nitrate of soda, iodine, copper, silver, fruits and grains, beans, hides, wool, furskins.

Colombia.—Coffee, bananas, cattle, tobacco, ivory nuts, rubber, cacao.

Ecuador.—Cacao, ivory nuts, rubber, coffee, gold, hides.

Paraguay.—Hides, beef, quebracho, yerba mate, tobacco, fruits.

Peru.—Copper, vanadium, wolframite, mineral oils, rubber, sugar, cotton, wool, guano, hides.

Uruguay.—Wool, hides, beef, tallow, hair, wheat, flour.

Venezuela.—Coffee, cacao, rubber, hides, goatskins, gold, meats, copper, sugar.

DISTRIBUTION OF TRADE.

In the four years before the war the total trade of Latin America with the United States was \$3,052,931,018; with the United Kingdom, \$2,383,450,233; with Germany, \$1,473,083,095; with France, \$874,362,332.

For the four years during the war the trade was: United States, \$6,160,401,444; with the United Kingdom, \$2,562,345,581; with France, \$816,841,376. The trade with Germany entirely ceased, excepting a very small clandestine trade, and the reports from the countries, as a rule, did not give the figures.

The trade with the United States more than doubled during the war; that with the United Kingdom increased about 6 per cent; that with France, decreased about the same proportion; and the trade with Germany decreased perhaps about 98 or 99 per cent.

There was a marked difference between imports and exports in the matter of the distribution of trade, in comparing the two periods. Imports from the United Kingdom were \$392,868,348 less during the four years of the war than during the four years before the war. This was a loss of over 30 per cent. Imports from France likewise decreased \$202,756,555, which was a loss of one-half. On the contrary, imports from the United States during the war period increased \$1,233,877,371, an increase which was more than the total of imports from the United States for the four years before the war.

On the export side, exports to the United Kingdom increased \$571,763,696; to France, \$145,733,675; and to the United States, \$1,873,593,055. In other words, exports to the United Kingdom increased a little over 50 per cent; to France, about 30 per cent, and to the United States nearly 100 per cent.

Again, if we divide the countries into two groups as to imports and exports, we have the results as shown in the following tables:

Northern group, 10 countries—Imports.

	United Kingdom.	Germany.	France.	United States.
Four years before the war:				
1910.....	\$31,244,350	\$21,331,856	\$16,191,271	\$136,108,728
1911.....	36,272,274	28,013,090	18,206,642	146,239,580
1912.....	37,047,804	28,975,019	19,368,283	151,117,848
1913.....	37,202,550	29,927,208	20,434,281	163,391,767
Total.....	141,766,978	108,247,173	74,110,477	596,857,923
Four years during the war:				
1915.....	31,920,802		13,162,469	184,741,115
1916.....	34,860,138		13,129,354	293,687,755
1917.....	28,865,572		10,384,638	355,103,575
1918.....	19,346,032		9,854,208	345,377,914
Total.....	114,992,544		46,530,669	1,178,910,359
Four years' increase.....	¹ 26,774,434		¹ 27,579,808	582,052,436
Per cent.....	¹ 18		¹ 37	97

Southern group, 10 countries—Imports.

	United Kingdom.	Germany.	France.	United States.
Four years before the war:				
1910.....	\$244,221,791	\$143,311,711	\$72,326,413	\$112,691,822
1911.....	262,099,378	166,057,707	77,470,841	129,701,069
1912.....	271,596,755	179,183,276	84,009,125	153,363,245
1913.....	285,555,025	188,900,663	89,520,389	167,523,500
Total.....	1,063,472,949	677,453,357	323,326,768	563,279,636
Four years during the war:				
1915.....	134,893,988		25,935,543	157,281,670
1916.....	151,330,088		33,135,448	245,039,475
1917.....	174,732,975		40,288,872	394,070,554
1918.....	236,421,984		48,790,158	418,712,872
Total.....	697,379,035		148,150,021	1,215,104,571
Four years' increase.....	¹ 366,093,914		¹ 175,176,747	651,824,935
Per cent.....	¹ 34		¹ 54	115

¹ Decrease.*Northern groups, 10 countries—Exports.*

	United Kingdom.	Germany.	France.	United States.
Four years before the war:				
1910.....	\$31,483,832	\$21,578,391	\$15,364,645	\$251,579,204
1911.....	31,761,559	25,509,399	19,522,402	245,104,896
1912.....	40,801,499	30,466,610	20,444,921	284,694,103
1913.....	47,815,428	30,178,101	19,166,108	273,651,875
Total.....	151,862,318	107,732,501	74,498,076	1,055,030,078
Four years during the war:				
1915.....	70,315,863		12,995,435	334,962,324
1916.....	89,906,738		24,623,832	414,196,206
1917.....	106,661,528		19,826,116	462,906,871
1918.....	98,891,327		9,461,843	544,175,522
Total.....	365,775,456		66,907,226	1,756,240,923
Four years increase.....	213,913,138		¹ 7,410,850	701,210,844
Per cent.....	140		¹ 10	64

¹ Decrease.

Southern group, 10 countries—Exports.

	United Kingdom.	Germany.	France.	United States.
Four years before the war:				
1910.....	\$236,944,036	\$121,595,582	\$95,655,838	\$191,462,651
1911.....	236,722,421	139,302,981	97,968,551	194,918,560
1912.....	270,693,412	156,625,332	103,831,319	247,094,781
1913.....	281,988,119	162,026,169	104,971,303	204,287,389
Total.....	1,026,347,988	579,640,064	402,427,011	837,763,381
Four years during the war:				
1915.....	297,984,630		95,579,973	341,183,532
1916.....	294,210,604		140,507,243	453,213,385
1917.....	326,664,926		116,009,186	616,898,166
1918.....	465,338,386		173,157,058	598,850,508
Total.....	1,384,198,546		555,253,460	2,010,145,591
Four years increase.....	357,850,558		152,826,049	1,172,382,210
Per cent.....	35		38	140

THE MARACAIBO OIL FIELDS

IN the general reconstruction now going on throughout the industrial world perhaps no factor plays such an important part as that of securing raw products for manufacturing purposes. To supply the world's necessities, raw materials of many kinds are needed, and to transform such materials into finished products requires power, or, in other words, fuel. In fact fuel is the essential element in the world's economy, and fuel is getting scarcer. Time was when fuel meant wood, later it meant coal, and now it means oil. Petroleum has reached such an important position in these days of gasoline engines that it promises to dominate all industry, and it is for this reason that geologists and mineral experts are exploring every nook and cranny in the world for oil seepages and other indications of the presence of this indispensable mineral. The demand grows, but the sources of supply from the great oil fields of the United States, Mexico, and Europe can no longer meet it, and new fields must be found.

In this connection, agents of the great oil industries of such manufacturing countries as the United States, Great Britain, and other nations have been giving especial attention to the development of the oil resources of Central and South America. Among the countries having such resources are Colombia and Venezuela, and recent occurrences would indicate that their oil regions are to be developed



THE REFINERY AT SAN LORENZO.

The first refinery to be built in the Maracaibo oil district. It is on the lake near Mene Grande and handled half of the 300,000 barrels of crude oil taken from three of the smaller wells in 1918.



A GASOLINE STILL AT TARRA.

Test wells were driven in this section as early as 1914 which proved it to be one of the most prolific of the petroleum grants.



WELL NO. 1 AT TARRA.

In the midst of the most tropical growth in this far off unexplored region is to be found this abundance of one of civilization's greatest needs.



WELL NO. 1 AT RIO DE ORO.

Situated southwest of Lake Maracaibo where more active production has begun since the close of the war.



CLEARING FOR THE TARRA RAILROAD

A certain sign of the active industry in the Maracaibo district is the building of railroads to facilitate transportation.



LAKE OF OIL AT RIO DE ORO.

Flowing wells found in this neighborhood in the early days of prospecting gave assurance of the commercial success of the venture.

to the fullest extent. Among the greatest fields so far discovered are those of the Lake Maracaibo region in Venezuela, now being developed by both British and North American capital. A recent report made by Mr. L. G. Donnelly, B. S., of the firm of Brokaw, Dixon, Donnelly, Gomez, and McKee, geologists and petroleum engineers, gives the following succinct account of the development of these deposits:

Although the presence of commercial quantities of oil in this region had been suspected for a long time from the numerous oil seepages and large deposits of asphalt, active prospecting on a large scale was not begun until the year 1912, under the direction of British and American interests. Detailed study showed that the primary source of the oil was the Cretaceous limestones and shales as in the Mexican oil fields, and that these formations had been so prolific that parts of practically all later formations had been impregnated with oil which was present in commercial quantities in numerous localities around the sides of the great synclinal basin of which Lake Maracaibo is the center and the surrounding mountain ranges are the rim.

In 1914 active drilling operations were begun at four points around Lake Maracaibo. On the east side of the lake, wells were sunk near Santa Barbara village, in the district of Bolivar, and at Mene Grande in the district of Sucre. Fifty miles west of Maracaibo a well was drilled in the district of Perija. Drilling was also begun southwest of the lake at Rio de Oro, in the district of Colon. Flowing wells were brought in at each of these places and the commercial success of the Maracaibo oil fields was assured. Although one of the Mene Grande wells flowed 13,000 barrels in 10 hours, by actual gauge, shipping restrictions induced by the outbreak of the war in Europe necessitated the closing in of the wells drilled and a sharp curtailment of development. However, tanks were erected, a pipe line built from the Mene Grande field to the lake port San Lorenzo, where a small refinery was constructed and put in operation for supplying the local markets, and a fleet of barges got in readiness to supply the large modern refinery which the British interests had erected at the Dutch island of Curacao, some 200 miles northeast of Maracaibo. Test wells were drilled in the district of Mara, northwest of Maracaibo, farther south in the district of Perija, and in the Tarra region of the district of Colon, besides additional test wells in the Mene Grande and Santa Barbara regions, and plans were consummated for more active production to begin as soon as possible after the close of the European war. In all some 30 wells have been completed. During the year 1918 some 300,000 barrels of crude oil were taken from three of the smaller wells in the Mene Grande region. Approximately one-half of this amount was sent to the refinery at Curacao, and the remainder was treated at the San Lorenzo refinery, and the products—gasoline, kerosene, and fuel oil—used in the local trade.

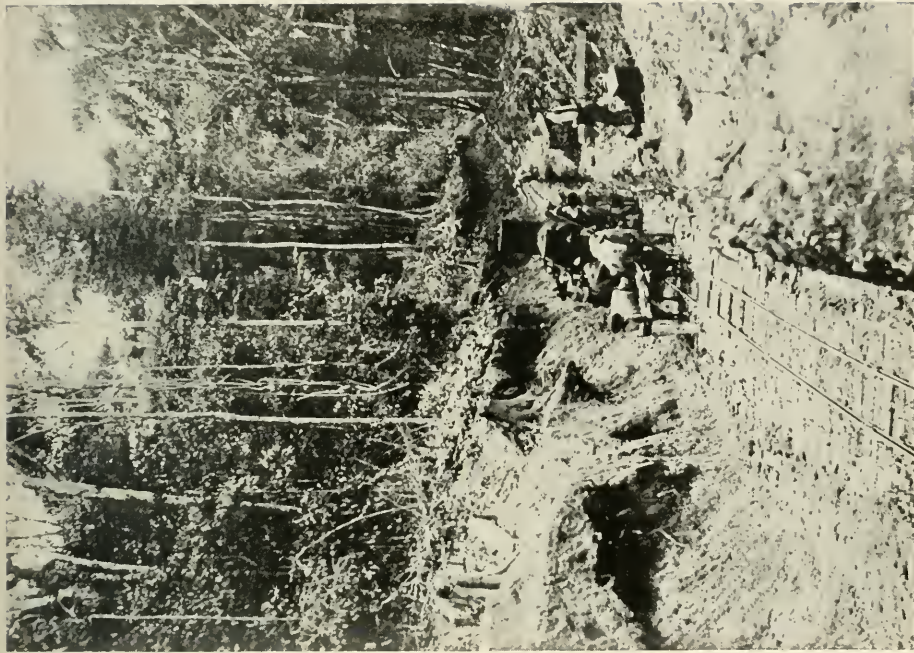
Confirming this account, and by way of showing the importance of the Maracaibo deposits from the standpoint of the British promoters, the following paragraphs are quoted from an article on the "Mineral Oil Resources of Venezuela," published in the Board of Trade Journal (London) in its issue of July 10, 1919:

Attention seems to be more directed to the west, particularly to the country around Lake Maracaibo, in regard to which in 1910 negotiations were commenced with the Venezuelan Government for a concession of 3,000 square miles on the eastern and western sides of the lake. This was granted, the property favorably reported on by geologists, and a company formed to develop it. Four wells are reported to have been drilled.



OIL GUSHER AT RIO DE ORE.

After reaching a little over 1,000 feet below the surface, oil of light gravity was found here. The capacity of the well is said to be about 200 barrels daily.



THE RAILROAD NEAR TARRA.

Portion of the completed narrow-gauge road winding through the mountains near Tarra.



THE LAUNCH COLON.

A boat of one of the oil companies on Lake Maracaibo.



A CAMP AT TARRA.

Settlement of the oil prospectors in the mountains of the Colon district.

Subsequently a further concession of about 3,000 square miles was obtained north of the previous concession and known as "Buchivacoa," in the State of Falcon, with a frontage to the Caribbean Sea, and another company was formed to develop this.

As recently as January, 1919, geologists reported that there were evidences of petroleum in commercial quantities over large areas and that well-defined anticlines existed, running northeast and southwest for a distance of over 50 miles, with recurring marked dome formations. Seepages were found on denuded crests on exposed oil sands of considerable thickness, and samples showed the oil to be of good quality. It is estimated that the productive strata should be reached at 1,000 feet downward.

It appears to be definitely established that deposits of both asphalt and oil exist around Lake Maracaibo at Rio Pauji, San Timoteo (Mene Grande field), El Mene, and Inciarde.

One company has carried out drilling with good results, two of its wells flowing at 2,000 barrels daily. The oil produced ranges from 15 to 19° Baumé. The testing of the Mene Grande field on the eastern shore of the lake has given satisfactory results, one well (Zumbador) reaching productive sands at 895 feet, and another (Zumbel) at 914 feet. Both have been shut in. The company has now drilled six wells, all of which are productive. Work has also been commenced on the construction of storage and shipping facilities—i. e., storage in Mene Grande field, pumping station, and a pipe line (6-inch) to San Timoteo, on the eastern shore of the lake, about 11 miles; large storage at Timoteo wharf, with extension pipe line and pumping station to deliver aboard vessel. It is also intended to build a refinery. In the Perija field, 50 miles west of Lake Maracaibo, one well (Zambapalo) struck oil at 1,227 feet in considerable quantities, and was shut in. Additional test wells are to be put down in this and in the Limon fields. The production increased from 12 tons in January, 1917, to 4,273 tons in December, 1917, the total output of the country for the year 1917 being 18,248 tons.

There are great expectations as to the future oil production of Venezuela, the present output being considered but a small fraction of what it is hoped to attain within a few years. There is no doubt that the industry is rapidly growing. Tank reservoirs have been built at La Guaira and Puerto Cabello, and the use of oil as fuel on the railways has also begun.

A refinery has already been started at San Lorenzo, about 60 miles south of Lake Maracaibo, and is producing motor spirit and kerosene. A second refinery with a capacity of about 6,000 barrels a day, has been erected on Curacao Island.

The development of the district of Colon, alluded to above in Mr. Donnelly's report, was started the latter part of 1914. A second well was recently drilled near the Rio Oro and after reaching a depth of a little over 1,000 feet, oil of light gravity was struck. The capacity of the well is said to be about 200 barrels a day. The company holding this concession is engaged in building roads for transportation and is also drilling another well in the Rio Torra.

British interests are said to have plans for developing their holdings on a very large scale. In fact, it is reported that one of the great companies expects to spend over \$50,000,000 as soon as certain governmental restrictions limiting investment of British funds outside of the Empire are modified. From all accounts, therefore, it would seem that the Maracaibo petroleum fields are destined to rival the famous Tampico fields of Mexico, and will prove an important factor in the world's future supply of fuel oils.

LUNCHEON GIVEN IN HONOR OF THE CHILEAN AMBASSADOR " " "

THE Chile-American Association, recently formed in New York by the most prominent members of the Chilean colony and American political, banking, industrial, and commercial heads who are interested in the development of Chile, on October 8 gave a luncheon in honor of the ambassador of Chile, his Excellency Señor Don Beltrán Mathieu. More than 200 guests were seated in the main dining room of the Bankers' Club, Equitable Building, the toastmaster of the occasion being Mr. W. L. Saunders, president of the Ingersoll Rand Co.

When the hour for toasts arrived Mr. Saunders presented to the guests Mr. Elihu Root, formerly Secretary of State of the United States and ex-Senator from New York, who had been invited to serve as the chief speaker for the association.

As always, Mr. Root's speech contained words of wisdom and deep significance, showing the advanced thought of a statesman accustomed to defining situations and pointing out new policies as well as manifesting the desire to build on solid and trustworthy foundations the friendship of the various nations of America. Mr. Root's remarks were extemporaneous, but the following very brief excerpts will serve to show the trend of his thought:

I believe this association is on the right road toward working out the problems of international relations and friendships. One of the prevailing vices of human nature is to tyrannize over others. That is at the bottom of the activities of many good people who are trying to reform the whole world and force their ideas of proper conduct on others by weight of law, exhortation, and arms. * * *

But the true basis of peaceful, prosperous, progressive life and development of civilization is friendship, which rests on the doctrine that each man should mind his own business. That is the true conception of liberty of others and of ourselves as well. * * * The true relation is where each proceeds upon his own rights. * * *

We recall the influence exerted upon the development of the western part of the United States by eastern capital. The contact that is brought about by the investment in one country of the capital of another is worth a thousand times all the preaching, exhortation, and insincere expressions of fine sentiment which vanish in air and result in no good.

That care for the welfare of others which insists that others shall do what you think best for them leads to insufferable condescension. * * *

The great lesson of the war is that prosperity and wealth and national advantage are not to be gained by conquest or robbery, but by industry and by respect for the rights and liberty and feelings of all our friends.

The Chilean ambassador replied to Mr. Root, thanking his hosts in a speech which contained interesting views of the present development of Chile, as well as valuable interpretations of the spirit and aims of his country. He spoke in part as follows:

In expressing my appreciation of the privilege which you have accorded to me I am moved by a twofold sense of gratitude; by your invitation, you not only honor me personally, but render a genuine service to my country, where it will also be gratefully appreciated.

I see about me the distinguished representatives of many important interests that are established in Chile, and it gives me great satisfaction to look upon their presence as accrediting my country's name before this Nation.

If this group of eminent personages who represent, perhaps, \$200,000,000 of investment in that small Republic, have been pleased to entertain with such exquisite courtesy the official representative of Chile, it must be because they are satisfied, because at least they have no complaints to make against us. * * *

Many will go where Messrs. Grace, Guggenheim, Braden, Dupont, and Schwab, have gone; where before them went other illustrious and venturesome Americans—the Wheelwrights and Meiggs, who have left behind them, for the Chileans, a legacy of grateful memories; and that gratitude is now perpetuated in the statue of Wheelwright which was erected in one of the plazas of Valparaiso, our principal port, where it stands as evidence of the fact that we delight to honor the champions of industry, and foreigners who contribute to our progress.

The mere fact that a country possesses great natural resources is not sufficient to attract the enterprise of man. In addition to natural obstacles, which are a matter of little concern to an American, there are often added other difficulties arising out of a defective political organization incapable of guaranteeing tranquillity at home or abroad. Or there are laws of antieconomic nature which only serve to kill the goose that lays the golden egg, or it may be a defective administration of justice or a spirit of chauvinistic egoism or even the savage ferocity of the Boxer spirit. These are obstacles far more serious than natural difficulties, which discourage men of enterprise and which also discourage capital, naturally timid and conservative; these are the obstacles which any country which desires the cooperation of foreign capital should quickly and completely remove. In Chile, however, we have been able to achieve an organization free from these impediments, and you are the men who can say whether we have fully reached the level of the best organized nations. * * *

We are further sustained by figures; for in the last commercial statistics of Chile for the year 1918 it appears that the United States has supplied one-half of our importations and has received more than one-half of our exportations, both representing very substantial sums. The commerce between the two countries has increased 400 per cent during the course of the past five years; and in that period the United States has passed from third place well into first place in the two branches of Chile's international commerce. And there is no reason why you should not retain the position you have won, and say, with the French general at Malakoff, "Here I am and here I stay."²

If commerce prospers between the two countries in such appreciable proportion; if American capital flows in confidently; if intellectual exchanges be initiated under favorable auspices; and, finally, if political relations rest upon the basis of justice and good will between the two peoples and Governments, then whatever may have been our little differences on past occasions, we can say, as it is my pleasure to declare now, that the ice is broken between the United States and Chile and the fruitful current flows freely like a limpid stream between your great Nation and ours.

You, gentlemen, are in a large part responsible for this result, and with the greatest pleasure I renew my thanks to you and raise my glass to your good health, trusting that your enterprises in my country may be fruitful for your benefit and for the progress of Chile.



LATIN AMERICAN EDITORS AND CORRESPONDENTS.

Group photograph taken on occasion of the dinner given in honor of Director General Barre'tt of the Pan American Union by the Latin American editors and correspondents in attendance at the annual Convention of the Associated Advertising Clubs of the World, New Orleans, La., September 24, 1919.

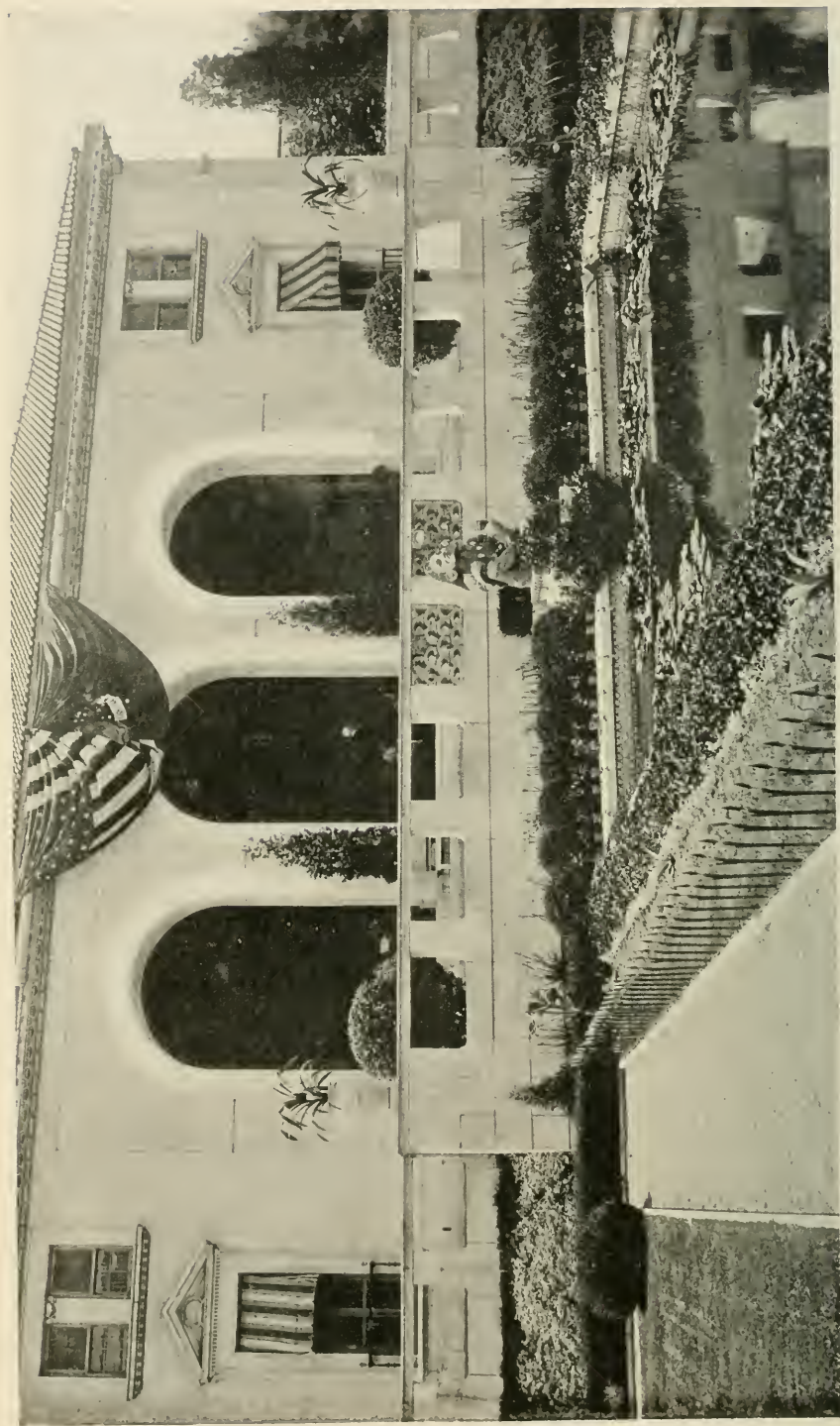
A FENCE OF JADE¹

IN HONOR of the recent visit to Washington of Dr. Pessoa, the newly elected president of Brazil, the first of the 54 panels of "jade fence" were installed in the garden of the Pan American Union. There can now be little doubt that these panels, reconstructions of the ancient decorative art motifs of the Mayan civilization, will make the Pan American garden, as intended by Mr. Albert Kelsey, the architect who enthusiastically conceived this unique idea, "unlike any other garden in the whole wide world." From a groove under the marble parapet, concealed green lights will cast a soft, eerie radiance down through the blue tracery of these strangely exotic reptilian designs. The 54 panels, according to Mr. Kelsey, will carry out a serpentine design "full of forms suggesting strange memories and queer experiences, and it shall be pierced with an illuminated design to glow at night all as jade." This unconventional idea is now being carried out in azure terra cotta made to look like jade, but of intrinsic beauty even without this suggestion. It is of milky blue fused with green and lavender. Each of these panels is to be different, while the harmonized and conventionalized unit formed by the whole series is to reproduce a host of Maya motifs. It is to be, declares the Philadelphia architect, a veritable museum of aboriginal Latin-American art. Yet to suggest the eerie, uncanny, and exotic character of that strangely mysterious art, concealed illumination suggesting the character of jade seems quite necessary to Mr. Kelsey.

In the pair of terminal features to end this strange fence of jade, the motif is of the famous serpent-skirted goddess, known as "one of the most striking examples of barbaric imagination," to quote Spinden. Lights concealed beneath the haaddress will be thrown down around the face and out through the Dunsanyan eyes. As in the intervening panels of the marble fence, this composition is to be executed in jade-colored, hand-made terra cotta. Other motifs which are to appear in the panels include the well-known "Long-nosed god," found in Yucatan, and the Jaguar head found on the disk-shaped stones of San Salvador.

In his preliminary studies for this unusual and ambitious undertaking, Albert Kelsey was permitted, through the courtesy of Elihu Root and Mr. John Barrett, director general of the Pan American Union, to see Yucatan and the centers of Mayan culture as few Americans have been able to. He has somewhat fantastically summed up his impressions in a recently published address, "Yucatan Sounds

¹Reproduced from the August number of ARTS AND DECORATION (New York).



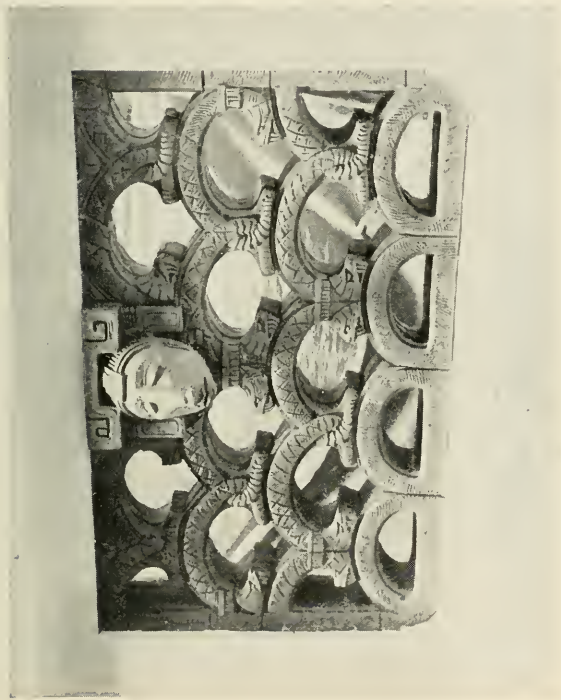
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REAR OF THE AZTEC GARDENS ENCLOSED BY THE MARBLE PARAPET.

A portion of the Pan American gardens showing the two panels of the "jade fence" just behind the Sad Indian, which were installed during the recent visit of Dr. Pessoa, President of Brazil.



Courtesy of Art and Decoration, New York.



DETAIL OF A PANEL OF THE "JADE FENCE."



In the terminal features shown to the right and left of the illustration the motifs of the famous serpent-skirted goddess considered the most striking example of barbaric imagination. Center: One of the "jade fence" panels showing the "Long-nosed God" of Yucatan.

and Scenes." How deeply Mr. Kelsey was impressed is indicated by his own words:

You must not forget that something more than centuries separates us from the ancient Mayas. * * * I tried to surrender myself to their point of view; tried to forget the imagined superiority of our own restless skyscrapers, congested cities, and flimsy, half-hearted churches; for these ancient Maya buildings each had four finished elevations, which alone impressed me mightily; while most of them stood upon special terraces, and all had a wonderful air of sublime calm—a severe calm and a fine presence. This is majesty.

Mr. Kelsey ventures even further:

Neither London nor New York, even with their structures at their very best, could possibly evoke such awe-inspiring feelings as these mighty ruins. Their infinite repose recalled the architecture of ancient Egypt; but it is a much more savage and a much more modest architecture. In its embellishment, for example, the human form is nearly always subordinated to the superhuman serpent, while in Egypt, as far as I can recall, the human form is nearly always dominant—the man in the beast is always the directing force. Compare, for instance, the reptilian turtle of Quirigua with the human Colossi of Memnon. There is repose and dignity in those great seated figures facing the river Nile, but in the jungle-ridden turtle there is life.

Moreover, throughout Central America, it seems to me, the modest Maya has left many strange forms more vibrant with life than any carvings I know of in Egypt. True, many are not very large, delicate, or subtle, certainly not so fine as the sensitive incised pictographs and ideographs of Egypt, but to me they represent an energy, an eloquence, a coiling, biting, squeezing force combined with an inscrutable repose, a calm in which strength is not relaxed (so typical of the snake they worshipped) that I could think of nothing more sublime (of course, having drifted back in spirit to the Maya cycle, uninfluenced by winged and haloed human forms, where I was able to think in terms apart from the Christian era). Moreover, it has become my belief that without such a sense of detachment it is quite impossible to understand or appreciate an art that springs from an ardent belief far stronger and more consuming than that which rears our flimsy places of worship to-day. Therefore, as an impartial architect, I ask you to look through my archaic lenses—barbarous lenses, if you will—look at the well-balanced façades of Uxmal. From a purely modern academic point of view they defy criticism; their unknown architects' sense of dignity and scale was marvelous! Note, for instance, how well the individual stones are bonded into the walls and yet how the vast reptilian design pierces and penetrates that very wall, twining and intertwining along its length in a manner that makes it quite impossible to say which is pure ornament and which the supporting structure itself. Surely there is no architecture in the world at once so highly conventionalized and so replete with meaning (so bedeviled with strange deities, if you still cling to your own era, and its limited horizon). No architecture in which a consistent theme has been adhered to and worked out in every detail with such imaginative skill and ardent belief; superardent is not too strong a term to coin for the occasion. They believed in the serpent, those barbarous founder of the Maya Empire. It was an all-divine concept to them and not a "me und Gott" working agreement presided over by men masquerading as angels and seraphs.

From the great terraced pyramid at Chichen Itza, marked by nine undulations in the bodies of the four great serpents stretching from its top to its base, representing the nine divisions of the Maya calendar, down to the richly intricate moldings in many dark-vaulted interiors the rattles, fangs, and teeth of snakes have been conventionalized and used, as I have said before, with marvelous skill and knowledge—serpents single and intertwined, feathered serpents, and scaly serpents have been used in endless variety, with here and there other forms, often human, but only introduced as mere accessories. What does it all mean? How are we ever going to learn its full significance? * * *

AGRICULTURE, INDUSTRY AND COMMERCE

ARGENTINA.

A message of the President to congress asking that a STOCK CENSUS be taken shows that the live stock now on hand in the Argentine Republic is less than in 1914, due to increased exports of meat-producing animals, which in 1918 rose to 2,977,000 head of cattle and 2,145,000 head of sheep.

During the last 20 years the agricultural and stock production of the Republic has greatly increased. In the five years from 1899 to 1903 the EXPORTS OF AGRICULTURAL AND STOCK PRODUCTS amounted to 878,000,000 Argentine gold pesos (gold peso = \$0.9648 U. S.), as compared with 1,493,000,000 gold pesos in 1904-1908, 2,074,000,000 gold pesos in 1909-1913, and 2,766,000,000 gold pesos in 1914-1918. The exports during the first five years referred to aggregated 387,000,000 gold pesos of agricultural products and 491,000,000 gold pesos of stock products. These exports during the second five-year period were 884,000,000 gold pesos of agricultural products and 609,000,000 gold pesos of stock products; during the third period they were 1,147,000,000 gold pesos of agricultural products and 927,000,000 gold pesos of stock products; and during the fourth five-year period they rose to 1,160,000,000 gold pesos of agricultural products and 1,606,000,000 gold pesos of stock products.

A CENSUS OF MINES under national jurisdiction, recently taken by the bureau of mines, geology, and hydrology, shows that there are in the country 718 mining claims distributed in the different territories, as follows: 180 in Los Andes; 85 in Neuquen; 166 in Chubut; 53 in Santa Cruz; 202 in La Pampa; 11 in Rio Negro; 19 in Tierra del Fuego; and 2 in Misiones. The minerals most abundant in Los Andes are borate of lime and soda, copper and silver, gold, lead, and sulphur; in Neuquen, petroleum, gold, lead, and silver; in Chubut, petroleum, coal, gold, and salt; in Santa Cruz, gold and salt; in La Pampa, copper; in Rio Negro, petroleum; in Tierra del Fuego, auriferous sands; and in Misiones, abrasive stone.

Notwithstanding difficulties encountered in obtaining maritime storage for FLAX for export, the exports of that commodity in 1918 were greater than those of 1917, and from January 1 to August 31, 1919, rose to 514,688 tons, as compared with 285,102 tons during the same period of 1918, and 61,598 tons in the same period of 1917. Of the total exports of flax during the first eight months of the pres-

ent year, 199,407 tons went to the United States and 96,187 tons to England.

During the first eight months of 1918 the EXPORTS OF MEATS from the Argentine Republic were as follows: 1,532,565 carcasses of frozen wethers, 4,190,172 quarters of frozen beef, and 78,884 quarters of chilled beef. During this period the packing houses slaughtered 2,184,915 beeves.

The SALES OF CATTLE at the national exposition held in Buenos Aires in September of the present year aggregated 6,686,970 pesos. Among these sales was a prize-winning Shorthorn bull which brought 100,000 pesos.

The stock of WHEAT AND FLAX available for export at the beginning of September last was 2,597,000 and 224,261 tons, respectively.

A report of the department of agriculture of the Argentine Government shows that the DAIRY INDUSTRY in 1918 produced 24,460 tons of butter, 20,417 tons of cheese, and 7,818 tons of casein. The number of creameries and butter-manufacturing establishments registered in 1918 was 3,035.

During the period from October 1, 1918, to September 1, 1919, 240,000 bales of ARGENTINE WOOL were exported, 120,000 of which went to the United States.

BOLIVIA.

In accordance with data just published by the National Bureau of Statistics and Geographical Research, the EXPORTATION OF MINERALS FROM BOLIVIA during the ten years from 1908 to 1917, inclusive, was valued at 699,430,563 bolivianos, distributed as follows: tin, 495,524,773 bolivianos; copper, 52,280,605 bolivianos; antimony, 47,844,840 bolivianos; zinc, 2,300,721 bolivianos; silver, 46,426,315 bolivianos; silver bullion, 2,509,699 bolivianos; lead, 3,078,075 bolivianos; wolfram, 19,921,301 bolivianos; bismuth, 23,989,744 bolivianos; iron, 96,960 bolivianos; gold, 1,122,646 bolivianos; gold bullion, 4,147,669 bolivianos; and other minerals, 187,215 bolivianos. In the items entitled "other minerals" are combined the exports of salt, lime, mercury, molybdenum, nickel, cobalt, carbonate of soda, asbestos, alum and sulphuric acid, which, although exported in small quantities, serve to give an idea of how varied and rich is the mineral industry of Bolivia.

An article published in the bulletin issued by the Bureau of Statistics and Geographical Research of La Paz, written by Señor Pedro Aniceto Blanco, an expert engineer, contains the following interesting data concerning the PETROLEUM ZONES OF BOLIVIA:

The petroleum regions of Bolivia may be divided into two classes—one, the eastern, which is very rich although it has not been thoroughly prospected, comprises the

whole eastern zone of Bolivia from Yacuiba on the south to Santa Cruz, where the petroleum gushers (especially at Parapetí near the boundary of the Department of Santa Cruz) are more or less in a state of formation, evidenced by a pure and clearer substance with 98 per cent of inflammable matter. In that region it is also found that the mountain ranges of Aguaraguá, Sararenda, Charagua, and the mouth of the River Piray are especially rich in petroleum, from the place called Espejo to the southwest of Santa Cruz, where it appears in a liquid and clear state, without any bituminous odor, according to tests at the Bureau at La Paz where an amount of petroleum from Santa Cruz was found to be of superior quality. Just parallel to these mountain ranges is located Inca-Hausi, where petroleum is also to be found although in smaller quantities. In this same zone are the excellent petroleum deposits of the Province of Azero in the Department of Chuquisaca.

The western zone shows unmistakable evidences of the presence of petroleum from the regions of the Rio Grande de Mizque, to Apillapampa, Ayoma and Campinota, where it disappears under the rocks to reappear again and again from Amborí to the west of Santa Cruz, to Caupolicán, this zone comprising the districts of Chaparém, Ayopapa, and Arque, of the Department of Cochabamba, and those of Caupolicán and Nor Yungas of the Department of La Paz. Further to the west are to be found, lubricating oils and also evidence of the presence of petroleum in the districts of the Province of Pacajes, on the border of Calacoto.

The newspapers have announced that the department of public works has appointed a commission of engineers, to make the necessary surveys to have the RAILROAD FROM GUAQUI TO PUNO pass around Lake Titicaca.

BRAZIL.

In accordance with data published by the Bureau of Commercial Statistics the value of the FOREIGN TRADE during the first seven months of the present year amounted to 2,050,762,000 milreis (milreis paper = about \$0.275, U. S.), the exports amounting to 1,289,390,000 milreis, and the imports to 761,372,000 milreis. With regard to quantity, the exports show a total of 1,140,575 tons, and the imports, 1,708,103 tons. This trade, both with regard to volume and value, was a great deal larger than that of a similar period of the previous year.

In a report which has just been published by the director of the Bureau of Information of Brazil, concerning the TIMBER TRADE, which is one of the great sources of wealth of the Republic owing to the large territory over which it extends, it is stated that among the exports of forest products which have been made lately, those of pine have been remarkable. Exports of this wood both to Uruguay and Argentina have been quadrupled since the commencement of the European war, both with regard to quantity and value. In 1918, 152,021 tons, valued at 16,825,753 milreis were exported as against 45,712 tons valued at 3,997,807 milreis in 1917: 71,126 tons valued at 5,354,618 milreis in 1916 and 30,719 tons valued at 1,794,040 milreis in 1915. In 1918, 49,341 tons, valued at 6,075,263 milreis were sent to Uruguay and 102,680 tons valued at 10,750,490 milreis to Argentina.

There has been established at Rio de Janeiro a company under the name of "S. A. Estaleiros Guanabara," for the purpose of DEVELOPING SHIPBUILDING in the country.

According to the latest news received from London, an important group of English capitalists has decided to establish a new STEAMSHIP LINE to ply between Brazil and England, and to construct shipyards in several Brazilian ports.

The South Atlantic Navigation Co. has established a quarterly steamship service between Rio de Janeiro and Buenos Aires, the steamers touching at Montevideo.

The Department of Public Works and Communications recently entered into a contract with Davidson Pullen & Co., João Varzea and Handley Page (Ltd.), to organize and operate the AERIAL COMMUNICATION SERVICE between several places located within the country and between these places and foreign countries, for the transportation of passengers and freight, with the understanding that the contract does not constitute a monopoly of any kind whatever.

The National Society of Agriculture of Rio de Janeiro has appointed a commission which during the coming celebration of the centennial of national independence will have charge of the organization of a great AGRICULTURAL EXPOSITION and the publication of the history of the agricultural and cattle raising evolution of the country.

The Department of Agriculture has ordered experiments made in connection with the CULTIVATION OF THE GUAYULE plant, a native of Mexico, in several parts of the country, especially in the northeastern section, in order to test the possibilities of its cultivation.

A Roumanian engineer has discovered great PETROLEUM DEPOSITS in the island of Nova Borpeba, in the Cova da Onca, of the Morro de São Paulo in the State of Bahiá, which, in his opinion, may produce a quantity equal to one-half of the production of the eastern States of the United States of America.

An EXPOSITION OF FAT CATTLE will be held in São Paulo in April, 1920, promoted by the "HERDBOOK CARACÛ."

According to data published by the bulletin of the Agricultural Society of the State of Parana there are now in that State 400,000 head of cattle, 320,000 horses, 35,000 mules, 60,000 sheep, 1,000,000 hogs, and 25,000 goats.

In one of the recent issues of the Brazilian Railroad Review the following data ON RAILROADS was published:

The government of the State of São Paulo has decided to annul the contract entered into May 22, 1917, with a foreign syndicate as managers and developers of the SOROCABANA RAILROAD for a term of 60 years. The Great Western Brazilian Rail-

way has at present in operation 1,617 kilometers of lines, 1,263 of which belong to the government and were leased to the company, and 354 kilometers belong to the company, while 346 kilometers are either under construction or being surveyed. The branch line which extends from Capivary to Río Clare west of Minas has been opened to public service. The São Paulo-Matto Grosso railroad company has already completed the 40 kilometers from Catanduvas to Ibida, the total extension of the line now under construction being estimated at 500 kilometers. The São Paulo-Rio Grande Co. has just opened the road of 99 kilometers of the Paranapanema branch between Colonia Mineira and Jaguariahyra to public service. The inauguration of the service of that section of the Carlos Barbosa-Alfredo Chaves railroad as far as Bento Gonsalves was attended with great ceremony, this road now having an extension of 22 kilometers, with 120 additional kilometers to be constructed. The surveying of this line is one of the best as well as the most dangerous works that have been carried out by the State of Rio Grande do Sul, owing to the numerous difficulties encountered in the efforts to span the enormous precipices found in the valley of the Antas River.

In accordance with law No. 3538 of December 30, 1916, passed by congress, the State of São Paulo has offered to sell at public auction THE NAVIGATION SERVICE BETWEEN SANTOS AND NATIONAL AND FOREIGN PORTS, and several bids have been received by the government.

During the first 18 months of its operation (from January 1918 to June, 1919), the Commission of National Production has distributed among the farmers of the country, 2,358,761 kilos of CEREAL AND PLANT SEEDS, 44,385 illustrated advertisements for propaganda purposes, and 195,870 copies of pamphlets on agricultural and cattle raising instruction. There were distributed 1,556,053 kilos of wheat seed, which shows the importance with which the government views the cultivation of cereals.

CHILE.

THE MERCHANT MARINE of Chile has been increased by the construction of two schooners supplied with motor engines. They have been christened the *San Antonio* and *El Porvenir*. The first named was built in the shipyards of Oettinger Bros., Valdivia, and has a capacity of 600 tons, and will be used in coastwise trade. *El Porvenir* was built in the shipyards of Hoffman Bros., in Valdivia; this vessel has a capacity of 400 tons and will be used in trade with Peru.

By decree of the ministry of industry, September 12, THE DEPARTMENT OF LABOR has been reorganized and will be in charge of the study of questions relating to social and labor legislation and will have charge, in a general way, of the public and private institutions whose object is to better the moral, intellectual, and material conditions of the employees and laborers of industry and commerce, and also miners, farmers, and domestics. The department will have the six following sections: Legal reforms, statistics, inspection of work, accidents of work, hygiene, and wages.

According to calculations made by Señor Tagle Rodríguez from the latest statistics THE INDUSTRIAL FIRMS OF CHILE number 2,738 and have a capital of 596,000,000 pesos (pesos equals \$0.193), and employ 65,000 operatives. There are 592 firms with a capital of over 150,000 pesos, employing 43,000 operatives, or 70 per cent of the total.

The firms of Gibbs & Co. and Grace & Co. have lately consummated a LARGE TRANSACTION IN NITRATE, buying 500,000 tons, the deal involving over \$1,000,000. The stock is to be delivered in installments by the 31st of March, 1920.

In accordance with a decree of congress the President has forbidden the EXPORTATION OF CEREALS until June 1, 1920. Such articles may be exported only to the surrounding countries. The same decree prohibits the exportation of rice, sugar, tea, coffee, yerba mate, table oils, and edible fats.

COLOMBIA.

The President, by resolution of August 23, approved the TRANSFER OF THE OIL CONCESSION granted to Señor Roberto de Mares, to the Tropical Oil Co. To secure the concession the transferee agreed to the following changes made in the original contract: First, The company does not acquire any real property rights by means of the transfer, to the oil wells, the soil, nor the subsoil where the wells are located, but only the right to develop them as leased lands. Second, The governmental profit shall be 10 per cent of the gross profit instead of 15 per cent of the net profit. Third, The company shall be under obligations to put up a refinery of sufficient capacity to provide for the national consumption of oil and to maintain the wells in working order, or the contract will be annulled. Fourth, The company renounces the rights to unoccupied lands (1,000 hectares to each well) conceded to it in the first contract. Fifth, Both the company and the actual work will be subject to inspection by the Government in the interest of the country.

The Department of Caldas opened for public service a stretch of 5 kilometers of the RAILROAD FROM PUERTO CALDAS TO MANIZALES which is being constructed by the administration.

The latter part of August plans were completed for the establishment of PACKING HOUSES IN CARTAGENA and other parts of the country by the Columbia Products Co.

During 1918 there were 88 MINES DENOUNCED in the Intendencia of Choco, and up to May of the present year 5 more were denounced. From 1907 up to May of the present year 2,471 mines have been denounced in the territory mentioned.

The EXPORTATION OF PLATINUM to the United States for the fiscal year ending June 30, 1918, was 48,745 troy ounces, worth

\$4,308,520. In addition to this there were exported 18,317 ounces of sheet platinum worth \$264,096.

A FACTORY TO EXTRACT SUGAR FROM COFFEE BERRIES is to be started in the neighborhood of Bucaramanga, by Sres. Joaquín Yepes, Victor, and Manuel Córdoba. It is said that the product is richer in sugar than that extracted from cane, and will be used in making spirituous liquors.

On August 26 a stock company was formed in Manizales with a capital of \$600,000 to establish a THREAD AND TEXTILE FACTORY, which will employ some 400 operatives.

According to a statement of the ministry of public works THE PRODUCTION OF OIL by the Tropical Oil Co. in the Carare region, Department of Santander, is 10,000 barrels a day. The company hopes to be able to produce 100,000 barrels a day in the coming year.

CUBA.

The value of CUBAN EXPORTS TO THE ARGENTINE REPUBLIC during the year 1918 amounted to \$3,220,726 (gold), a sum greatly in excess of that of previous years.

The Habana papers have recently reported the establishment of the service of the following STEAMSHIP LINES TO HABANA: The Earn Line Steamship Co.'s freighters, which ply between Habana and Philadelphia; a monthly schedule on the Italian line between Genoa, Barcelona, and Habana; the Royal Mail between Cuba, Spain, and England; the ships of Suarez & Co., of Habana, which sail between Habana, the United States, and Argentina; the United Fruit Co.'s steamers, carrying both passengers and freight, plying between the ports of New York, Habana, and some Mexican points; and a line of Dutch freight steamers which on their way from Holland to Habana, touch at some northern ports of Spain. In addition to the above the steamers of the Brazilian Lloyd Steamship Co., which ply between Rio de Janeiro and New York, will hereafter touch at Habana in accordance with arrangements which the Cuban minister to Brazil has recently perfected.

During the first seven months of the current year the EXPORTS OF SUGAR amounted to 19,477,100 bags, representing a total of 2,782,443 tons—a considerable increase over the output of the previous year. During the same period of 1918, 18,108,729 bags were exported, a total of 2,586,960 tons, while in 1917, the exports amounted to 18,477,970 bags, or 2,691,590 tons. At the beginning of last September there were on hand 5,691,590 bags, or 813,072 tons as against 3,893,761 bags or 556,251 tons during the same period of 1918. Matanzas is the principal port through which sugar shipments have been made from Cuba.

The CUBAN PETROLEUM CO., of Vuelta Abajo, which possesses a great number of petroleum claims in the Province of Pinar del Rio, has just been organized at Habana.

According to the opinion of a prominent cattle raiser of Santiago de Cuba, this Republic will shortly commence to EXPORT BEEF to the United States. The cattle raisers of the Province of Oriente are at present importing great quantities of lean steers from Venezuela and Colombia to Cuba to be fattened, killed, and exported to the markets of the United States.

A commercial paper of Habana announces that the value of THE CUBAN SUGAR PRODUCTION of 1918-19 amounted to \$457,305,858 on a total of 3,967,877 tons of sugar.

A NEW DISTILLERY with a capital stock of \$95,000 has just been established in Habana. It is the intention of the company to open branches in several other cities of the Republic.

Newspapers state that the firm of Armour & Co. is now installing a great PACKING PLANT in the cattle-raising coast region near Cayo Cruz for the preparation of meats and fish.

The CHAMBER OF COMMERCE, INDUSTRY, AND NAVIGATION OF CUBA has just commenced the construction of a six-story building of reinforced concrete in Mercadores Street, corner of O'Reilly, in Habana, on the site which for more than 300 years has been occupied by the old convent of Santo Domingo, where they will soon open their offices. The cost of this building has been estimated at \$1,500,000.

DOMINICAN REPUBLIC.

Dominican press notices state that the Latin American Steamship Line of New York has established a SERVICE OF FREIGHT AND PASSENGER STEAMERS between the ports of the United States and the Dominican Republic and Colombia. Several of the steamers have taken on cargoes for New York in the Dominican ports of Sánchez and Puerto Plata.

ECUADOR.

Sres. Alejandro Maldonado & Co. have started a CHEESE FACTORY in the Province of Leon. They have engaged French cheese makers and will manufacture high grade cheeses such as camembert and point l'evéque.

The committee appointed to judge the exhibits in the first EXPOSITION OF THE SHOE MANUFACTURERS SOCIETY of the Province of Pichincha, which took place in Quito in August, awarded 3 gold medals to manufacturers of men's shoes, 3 gold medals to manufacturers of women's shoes; 12 silver medals to manufacturers of both men's and women's shoes; a gold medal to the manufacturer

of children's shoes; 1 gold and 1 silver medal to manufacturers of saddlery; a silver medal to the best last maker, and a silver medal to the best leather finisher.

The Department of Agriculture has begun the compilation of the AGRICULTURAL STATISTICAL TABLES for the Republic.

On August 24 in the city hall of Quito the awards of prizes to exhibitors in the THIRD AGRICULTURAL EXPOSITION of the National Agricultural Society were made. The President of the Republic attended the ceremony, and Dr. Alejandro Villavicencio made an address on the evolution of agriculture in Ecuador.

The AGRICULTURISTS' PROTECTIVE SOCIETY has elected a new governing board, of which Señor Rafael Arturo Buenaventura is president.

GUATEMALA.

The newspapers announced the arrival on the Guatemala coast the early part of October of the steamer *Lake Como*, out of New York, carrying a CARGO OF 22,000 PACKAGES OF MERCHANDISE weighing 15,000,000 kilos, the largest cargo ever brought there in a single vessel.

The President has authorized the board of agriculture of the Department of Huehuetenango to collect annually 10 per cent of the product of the communal crops of that district in order to secure sufficient seeds to be used in a new AGRICULTURAL EXPERIMENT STATION on public land at the capital of this department, for the purpose of cultivating hemp-producing fibers and preparing selected seeds.

The Guatemalan press states that the quarterly steamship service just established by the Pacific Mail Steamship Co. between San Francisco, Calif., and Baltimore, Md., via the Panama Canal, will TOUCH AT SAN JOSÉ DE GUATEMALA and other Central American ports.

HAITI.

According to official statistics just made public the FOREIGN TRADE of the Republic of Haiti during the fiscal year ended September 30, 1917, amounted to \$15,826,344. Of this, \$8,606,055 were the imports and \$7,220,289 the exports. The chief countries of export were: United States, \$3,926,953; France, \$3,023,691; and United Kingdom, \$61,182. The principal articles of export were: Coffee, 46,384,084 pounds, valued at \$4,620,553; logwood and logwood extract, 93,574,169 pounds, valued at \$769,679; cocoa, 3,891,997 pounds, \$489,694; cotton, 2,517,880 pounds, \$355,367; honey, 1,760,998 pounds, \$191,095; goatskins, 355,090 pounds, \$181,884; hides, 355,587 pounds, \$109,621; lignum-vitæ, 15,592,106 pounds, \$107,112; cotton seed, 3,731,754 pounds, \$76,808; corn,

1,114,202 pounds, \$53,516; cotton oil, 940,911 pounds, \$53,023; castor beans, 853,467 pounds, \$49,540. The principal countries of imports were: United States, \$7,478,228, nearly 87 per cent of the total; France, \$393,317; and United Kingdom, \$591,777.

With the gradual return to prewar conditions of navigation the several STEAMSHIP LINES operating vessels between Haiti and the foreign ports have now resumed their regular service. Among them is the Royal Dutch West India Mail, one of the most important lines touching at Haitian ports. Steamers of this company usually go from New York to Amsterdam, via the West Indies. The service which is bimonthly, is both freight and passenger. The Compagnie Générale Transatlantique maintains a monthly passenger and cargo service between Havre, France, and the principal Haitian ports. The Raporel Line, composed of chartered vessels, mostly American, has a bimonthly service between New York and all the Haitian ports for which the ships have merchandise.

HONDURAS.

Reports received from La Ceiba state that a DRY DOCK has been built in the Cayu Las Palmas, Bay of Roatán, for the construction and repair of wooden vessels. It will be open to public service in January, 1920. This will make two dry docks on the Atlantic seaboard of Honduras, one being already located at Ockridge.

MEXICO.

The Department of Agriculture and Promotion has just published a report concerning the COTTON CROP OF 1918, which shows that there was a yield of a total of 79,653 metric tons, of 2,200 pounds each, distributed as follows: Lower California, 20,603; Coahilla, 35,101; Mayarit, 12,566; Durango, 8,250; Jalisco, 410; Oaxaca, 912; Sinaloa, 618; Sonora, 605; and Vera Cruz, 588 tons.

Within a short time there will be established on the Gulf of Mexico the first SHIPYARD in the waters of the Mexican Republic, the necessary concession having been granted to a company especially organized for that purpose which will invest a large sum of money in the construction of sailing vessels and motor boats. The shipyard will be installed in the port of Campeche in order to utilize the enormous amount of wood produced by the forests of the States of Campeche and Tabasco in the construction of vessels for coastwise trade.

In order to put into practice a very comprehensive program of AGRICULTURAL PROPAGANDA throughout the country of Mexico, the Department of Agriculture and Promotion has just appointed three commissions, which will proceed to the northern, eastern, and western parts of the Republic for the purpose of visiting all of the villages and towns in the localities assigned to them to give

lectures concerning the modern processes now used in tilling the soil. It is believed that by this method of spreading practical knowledge the farmers will soon produce better and more abundant crops.

In view of the fact that for some time past the mining companies of Chihuahua have been encountering so many difficulties in securing materials necessary for their work, in obtaining money to pay the laborers and in shipping precious metals, that it has become practically impossible to continue the working of the mines, they have recently organized a company for the purpose of establishing a FREIGHT AEROPLANE SERVICE for such mines as are located between the capital and the principal mining centers. The company has already applied to the Government for the proper permit.

The National Government has granted a permit to the Island Mexican Refining Co., S. A., to construct and operate a PETROLEUM REFINERY, the daily capacity of which shall be no less than 750 cubic meters, or 5,000 barrels of 159 liters each, in the municipality of Tamiahua, Cantón of Taxpan, State of Vera Cruz, and also for the construction of a petroleum receiving, storage and shipping plant in the same place.

According to newspaper reports RICH DEPOSITS OF PETROLEUM have been found in the State of Coahuila, which are soon to be exploited on a large scale. Investigations already made by well-known geologists show that the northern part of the State contains petroleum wells that compare favorably with the deposits found in the northern part of the State of Vera Cruz, which are at present considered among the best and richest in the world. For the purpose of exploiting these newly discovered properties, several companies have been organized, which propose to construct modern refineries as well as pipe lines for carrying the oil wherever the refining plant may be established. The preliminary work will begin at once in the vicinity of Piedras Negras, where coal tar has collected on the surface of the earth, the surest evidence of oil underground. Geologists assert that the deposits of Coahuila are a continuation of those which are found in the State of Texas.

Reports made by the general Bureau of Agriculture state that the CORN CROP of the present year will be as large as that of 1918, which means that the production will be great enough not only to satisfy all of the needs of the Republic but also to allow the export of large quantities to other nations.

Under the title of the Gulf Navigation Co., there has just been organized in New Orleans, United States of America, a company which proposes to establish and operate a STEAMSHIP LINE between the above-named port and Tampico, Vera Cruz, Progreso, and other Mexican and Central American ports.

NICARAGUA.

During the six months from January to August, inclusive, of the present year, the SUGAR EXPORTS from the Republic amounted to 78,509 quintales (hundred weight).

THE MANUFACTURE OF POWDER throughout the country has been prohibited, its production being monopolized by the Government.

According to data published in the newspapers, there are two ASPHALT DEPOSITS in the country which are considered very rich, one of them being situated in the vicinity of San Francisco del Carnicero, and the other on the coast of Lago del Granada to the east of the mouth of the Río Tipitapa.

A COAL MINE HAS BEEN DISCOVERED on the plantation called Las Márias in the Department of Chontales, which is also thought to be rich in petroleum deposits because of the bituminous substance which has been observed in adjacent territory.

By a contract entered into with the Department of Promotion the American engineer, Philip H. McKinley, has secured the right to carry out geological studies and explorations for the EXPLOITATION OF PETROLEUM in the Departments of Bluefields, Chontales, and New Segovia, Comarcas de San Juan del Norte, and Cabo de Gracias a Dios, and the districts of Prinzapolka, Río Grande, and Siquia, and to make investigations to determine whether or not deposits of petroleum or natural gas may be found which are worth developing.

In accordance with a circular which the President of the Republic addressed to all of the governors, requesting them to make a report concerning the TROPICAL FRUIT PRODUCTION in their respective departments, the governor of Carazo has sent word that there are in his department 22,375 mamey trees, yielding 11,187,500 fruits; 29,193 alligator pear trees, producing 5,838,600 pears per annum; 36,469 rose apple trees, yielding 14,587,600 apples; and 9,506 zapote trees from which 2,851,800 of its fruit are gathered annually; and experts have estimated that on an average each mamey tree produces 500, each alligator pear tree 200, each rose apple tree 400, and each zapote 300 fruits per season.

The President has ordered the CONSTRUCTION OF TWO ROADS, one connecting Managua with the sea, passing through Santa Ana, and the other to the coffee zone of La Cuchilla in order to transport the coffee cultivated in that region.

During the first 30 months of the administration of the President, Señor Emilio Chamorro, the amount of 4,933,486 córdobas has been PAID ON THE FOREIGN AND NATIONAL DEBT. In order to make these payments, 2,185,612 córdobas of the national revenue and 2,747,874 córdobas of the income from the canal convention have been taken.

The President has taken advantage of the stay in the United States of the secretary of the treasury, Señor Octaviano César, who is working in the interest of the second Pan American Financial Congress, to authorize him to negotiate loans with private parties or corporations **FOR THE CONSTRUCTION OF RAILROADS AND OTHER PUBLIC UTILITIES** in Nicaragua, under whatever terms and conditions he may deem advisable in order to accomplish his purpose.

The proceeds from the **NATIONAL REVENUE** during the month of August amounted to 120,525 córdobas.

PANAMA.

During the last two months coconuts have been selling at the highest prices ever known in the Colon market, the prices ranging from \$60 to \$75 a thousand. These high prices have stimulated the export business to such an extent that during the quarter ending September 30 the coconuts invoiced for export to the United States amounted to 5,850,913 (in July, 652,765; August, 2,499,404; and in September, 2,698,744), valued at \$393,932. The number of coconuts exported would have been somewhat larger if shipping accommodations had been afforded. A good many coconuts are brought to Colon from Cartagena and the Colombian island of San Andres, for export to the United States. Five years ago the export prices of coconuts at Colon ranged from \$20 to \$22.50 a thousand.

PARAGUAY.

A Brazilian mining and transport company has **ESTABLISHED A LINE OF STEAMERS** between Montevideo and the ports of the upper Paraguay. There will be 8 steamers, 2 of the largest being of 1,000 tons capacity, 36 lighters, and 8 tugs. The company has contracted for the construction of 20 boats in the United States, which it will devote to this service. This company has its main business in Rio de Janeiro, but has established branches in Montevideo, Asunción, and Corumbá. According to reports the new service has already had a beneficial effect on river trading, since it has considerably reduced the freight rates, and the company will also facilitate the transshipment of goods destined to Paraguay to its ships in Montevideo. This should be a stimulant to foreign trade, as up to the present the cost and delay of transshipping have been a great obstacle to the development of Paraguayan commerce. For the present the company is sending weekly steamers to Montevideo and Corumbá and back, the steamers stopping at Asunción, Concepción, and other Paraguayan ports on the up and down trips.

PERU.

An Executive decree, under date of September 12 last, provides for a commission to take charge of preparing SAMPLES OF NATIONAL PRODUCTS which will be sent to all Peruvian foreign consulates for propaganda purposes.

A new bureau has been organized, to be known as the BUREAU OF LABOR, which will be under the Department of the Promotion of Industry and will handle all labor matters.

URUGUAY.

According to cable despatches the Royal English Mail Co. has just launched at Belfast a new ship of 8,500 tons, christened *Narenta*, which is destined to be engaged in the TRANSPORTATION OF FROZEN BEEF between the ports of the La Plata River and Great Britain. The *Narenta* is the same type as the *Navasota* and the *Nagara*, and, like these ships, will be capable of carrying 5,000 tons of frozen beef. All three are fast ships, making the voyage in 19 days.

Reports made by the Bureau of Commercial Statistics show that the value of THE FOREIGN TRADE of the Republic during the first six months of the present year was as follows: Customhouse value of imports, 18,317,112 pesos (peso equals about \$1.034 U. S. currency); real value, 70,591,905 pesos. Comparing these figures with those of the same period of 1918 shows an increase of 176,262 pesos in the customhouse value of the imports, and an increase of 317,079 pesos in the real value. The difference in favor of the first half of the year of 1919 in regard to the exports amounted to 17,072,831 pesos in comparison with the exports of 1918. The real value of the imports and exports of the first six months of 1919 shows a balance in favor of the trade of the country of 17,639,419 pesos.

An important British company, with its principal offices located in London, has organized an AEROPLANE NAVIGATION SERVICE over the Pernambuco-Rio de la Plata route. This company has acquired sufficient land for the establishment of aerodromes and factories at Montevideo, Buenos Aires, Rio de Janeiro and Pernambuco and has employed a competent corps of mechanical engineers. The service between Rio de la Plata and Pernambuco will be started early next year and will carry mail, passengers, and freight, and it is expected that it will eventually be extended throughout South America. In the beginning the journey from Pernambuco to Montevideo will take four days, and will follow the coastwise line and the principal centers located on the railroad lines down to Montevideo and there will cross the river in the direction of Buenos Aires. The journey will be made in the two following stages: First, Pernambuco, Aracajuá, San Jorge de Ilheos, Porto Alegre, São João da Barra, and Rio de

Janeiro; second, Rio de Janeiro, Santos, San Francisco, Porto Alegre, Pelotas, Maldonado, Montevideo, and Buenos Aires. In the beginning the average flight will be from 1,300 to 1,400 kilometers per day. Later on it is the intention to establish a day and night service, so that the distance between Rio de la Plata and Pernambuco may be covered in two days and a half. The machines employed will be of the Handley-Page type, of two motors, with a capacity for 14 passengers and 1,500 kilos of mail matter.

VENEZUELA.

The Italian Steamship Co. *La Veloce* has announced the establishment of a LINE OF STEAMERS BETWEEN VENEZUELA AND SOUTH AMERICAN PORTS ON THE PACIFIC. It will be a passenger and freight service, and the first trip will be made on November 1 by the *Bologna* outbound from Cenoa. The steamers will make the following ports of call on outbound and incoming voyages: Genoa, Marseille, Barcelona, Teneriffe, Barbados, Trinidad, La Guaira, Curaçao, Puerto Colombia, Cristobal, Guayaquil, Callao, Mollendo, Arica, Iquique, Antofagasta, and Valparaiso. For the present the service will be bimonthly, but as soon as the four ships now being built are constructed the service will be more frequent. The Italian Transatlantic Co. has also established a line of freight steamers to the same ports.

Señor C. A. Dávila, chief of the agricultural station of Caracas, has begun the installation of an EXPERIMENTAL AGRICULTURAL STATION at Maracay, capital of the State of Aragua.

According to figures from the treasury department, the FOREIGN COMMERCE of Venezuela in the latter half of 1918 in imports amounted to 37,242,918 bolivares (bolivar equals \$0.19), and in exports to 51,321,429 bolivares. The United States was the largest importer, with 22,052,470 bolivares; Great Britain second with 10,738,176 bolivares; Spain third with 1,168,237 bolivares. The total imports of 1918 were 77,244,950 bolivares and the total exports 102,659,153 bolivares, making a balance in favor of Venezuela of 25,414,203 bolivares. In the five years previous the importations amounted, in bolivares, to 93,420,225 in 1913; to 72,473,912 in 1914; to 69,793,970 in 1915; to 106,914,089 in 1916; and to 114,964,886 in 1917. The exports for the same years were as follows: 152,765,749; 111,505,354; 121,266,458; 117,652,854; and 120,024,360. The commercial balances in favor of the country for the same years were 59,345,523 in 1913; 39,031,441 in 1914; 51,472,488 in 1915; 10,738,756 in 1916; and 15,059,484 in 1917.

An order of the Department of Promotion opened to public auction on September 17 for THE LOCATION AND OPERATION OF

COAL MINES AND OIL FIELDS and related substances, the free land in the municipalities of Luis Cómez and Carcía of the District of Mariño; in the municipalities of Silva, Aguirre and Villalba of the District of Manicero; and of the municipalities of Luisa Cáceres and del Campo of the District of Arismendi of the State of New Esparta. Proposals may be presented up until February 15, 1920, and only those will be accepted that fulfill the conditions of articles 5 and 6 of the law of mines, and articles 2 and 10 of the regulation for coal and oil.

In the latter half of 1918 the MOVEMENT OF VESSELS to and from Venezuelan ports was as follows: One hundred and fifty-nine steamers entered with 251,054 tons displacement, and 218 sailing vessels with 10,294 tons; and 205 steamers sailed with 253,913 tons, and 968 sailing vessels put out to sea with 31,982 tons.



ECONOMIC AND FINANCIAL AFFAIRS



ARGENTINA.

The STATEMENT OF ARGENTINE BANKS for June 30, 1919, shows that the deposits, discounts, and existing currency on that date aggregated 5,691,900,000 pesos, national currency, or 167,800,000 pesos more than the total on the same date in 1918. The increase in deposits was 40,000,000, and in discounts 128,700,000 pesos, while the cash on hand decreased 9,000,000 pesos. The Bank of the Argentine Nation increased its general deposits during the current year by 6,200,000 pesos, and its discounts and advances by 93,000,000 pesos, while its cash on hand diminished 6,200,000 pesos. In January last the money in circulation was 1,154,400,000 pesos; in each of the months of February, March, April, May and June the money in circulation was 1,163,900,000 pesos. The statement shows that the deposits in January were 2,820,600,000 pesos, discounts 1,938,500,000, and cash on hand 830,800,000 pesos; in February the deposits were 2,772,600,000 pesos, the discounts 1,961,400,000 pesos, and the cash on hand 831,400,000 pesos; in March these accounts were, respectively, 2,786,000,000 pesos, 1,989,700,000 pesos, and 833,000,000 pesos; in April they were, respectively, 2,776,500,000 pesos, 2,003,600,000 pesos and 779,500,000 pesos; in

May they were, respectively, 2,793,000,000 pesos, 2,015,500,000 and 822,800,000, and in June these accounts, were, respectively, 2,858,000,000 pesos, 2,004,500,000 pesos and 829,400,000 pesos.

Under a decree of September 8 last the appointment of the members of the Argentine section of the INTERNATIONAL HIGH COMMISSION was made in accordance with the agreement concluded by the nations participating in the first Pan-American Financial Congress of Washington. The chairman is the minister of finance, and the other members are as follows: Mariano J. Paunero, Santiago G. Rocca, Manuel M. de Iriondo, Samuel Hale Pearson, Luis E. Suberbuhler, Federico Leloir, Francisco Mendez Goncalvez, Jose Augusto Otamendi, and Domingo Fernandez Boschet. Pedro Palacios will act as secretary.

According to the department of labor during the first half of 1919 there were 259 STRIKES in the Argentine Republic, in which 262,319 workmen participated.

In August last the CUSTOMS RECEIPTS amounted to 22,078,377 pesos. During the first eight months of the present year these receipts were 120,056,014 pesos, as compared with 108,342,583 pesos during the same period of the former year.

In August last the transactions of the NATIONAL POSTAL SAVINGS BANK numbered 73,222. The bank had at that time 312,383 depositors with deposits aggregating 18,563,727 pesos.

On August 31 last the statement of the condition of ARGENTINE BANKS showed deposits in account current, 10,704,405 pesos, gold, and 2,884,253,569 pesos, currency; documents and advances, 4,778,019 pesos, gold, and 2,039,202,718 pesos, currency; on hand in the country 61,072,070 pesos, gold, and 745,569,151 pesos, and paid-up capital 47,865,413 pesos, gold, and 355,181,717 pesos, currency.

Announcement is made of the establishment in Buenos Aires of a SCANDINAVIAN-ARGENTINE BANK, with savings, commercial, industrial and mortgage departments. Pedro Storm is chairman of the board of directors.

During the first nine months of the present year BUSINESS FAILURES in the Argentine Republic represented a total of 35,152,691 pesos, currency, as compared with 43,841,672 pesos, currency, during the same period of 1918.

The TERRITORIAL TAXES collected from January 1 to September 30, 1919, amounted to 45,647,555 pesos, currency, as compared with 40,249,970 pesos, currency, during the same period of 1918.

According to data furnished by the agricultural stock registration office FARM MORTGAGES to the value of 134,407,981 pesos, currency, were executed during the first half of the present year, and mortgages aggregating 54,265,354 pesos, currency, were cancelled.

BRAZIL.

The following BRANCHES OF BANKS have been established: Branches of the National Bank of Commerce of Porto Alegre, in Nova Vicenza, San Marcos, Bento Gonçalves, and Vaccaria: branches of the Pelotense Bank of Pelotas, in Rio de Janeiro, Julio de Castilhos, and Lagoa Vermelha, that of Rio de Janeiro being the first branch established by this bank outside of the State of Rio Grande do Sul. The British Bank of South America (Ltd.) has been authorized by the National Government to establish branch offices in the cities of Porto Alegre, Rio Grande, and Pelotas in the State of Rio Grande do Sul, and in the city of Recife in the State of Pernambuco.

Statistics concerning the RÉVENUE OF THE PORT OF RIO DE JANEIRO from 1910 to 1918, inclusive, which have just been published by the inspector of ports, rivers, and channels, give the total amount collected in the nine years at 60,173,741 milreis, of which 7,952,031 milreis were collected in 1918 and 7,171,472 milreis in 1917. The highest for any one year is credited to 1913, when the customhouse duties amounted to 8,700,375 milreis. Of the total amount of this revenue for the nine years 33,832,207 milreis belong to the Government, and 26,341,534 to the company of the port of Rio de Janeiro.

The governor of the State of Santa Catherina has ratified a law passed by the congress of that State whereby it is authorized to raise a LOAN OF 20,000 CONTOS, either in the Republic of Brazil or abroad, the money to be applied to the following public utilities: The connection of the capital, Florianopolis, which is located on the Island of Santa Catherina, with the continent by means of a bridge or by ferryboats; the construction of electric railroads which shall connect the capital with the respective districts; the construction of electric railway lines to connect the capital with the near-by colonies and districts; the sanitation of the island and of the municipalities of the seaboard wherein malaria or other tropical diseases prevail. The loan is to be guaranteed with the proceeds of the land tax.

According to data published by the *Cazeta del Bolsa* of Rio de Janeiro, the FOREIGN, NATIONAL, AND FLOATING DÉBTS OF THE STATES of the Republic amounted to the following sums in contos (paper conto=about \$275 U. S.): Federal District, 168,829, 76,376, and 29,516 respectively; Amazonas, 52,347, 24,399 and 20,347; Pará, 50,713, 11,593, and 17,241; Maranhão, 9,000, 2,225, and 1,325; Bahía, 43,407, 103,000, and 34,000; Espírito Santo, 13,774, 7,458, and 7,743; Rio de Janeiro, 49,325, 23,485, and 8,035; São Paulo, 50,817, 72,615, and 55,600; Paraná, 45,000, 38,248, and 12,724; Santa Catharina, 3,254, 2,789, and 758; Minas Geraes, 95,489,

60,141, and 12,675; Pernambuco, 32,453, 28,500, and 2,822. The States of Ceará and Alagoas have a foreign indebtedness amounting to only 4,361 and 8,175 contos, and floating debts of 4,731 and 796 contos, respectively; those of Rio Grande do Sul, Matto Grosso, and Rio Grande do Norte have national debts amounting to 5,744, 5,320, and 618 contos, and floating debts of 9,846, 2,058, and 132 contos, respectively; those of Coyaz, Sergipe, and Piauhy with national debts of 839, 3,403, and 770 contos, respectively, and that of Parahyba with a floating debt of only 425 contos.

CHILE.

The total number of GOVERNMENT LAND holdings registered by the section of national property for the first six months of 1919 was 9,661, worth 332,354,914 pesos (peso equals \$0.3650). In 1909 there were 3,135 government-owned properties, worth 203,755,441 pesos.

For the first eight months of the present year the customs revenue amounted to 76,954,260 pesos, as against 145,253,326 pesos for like period of 1918, showing a diminution of 68,299,066 pesos for 1919. The export revenue for the same period was 11,579,551 pesos.

In a meeting held the latter part of August the joint budget commission of the Chilean Congress approved the estimate of the NATIONAL REVENUE FOR 1920, which was 178,498,810 paper pesos and 78,832,000 gold pesos. The previous year the estimate was 136,034,000 paper pesos and 90,810,000 pesos gold.

THE AMOUNT OF MORTGAGES contracted on territorial property show the following balances due December 31, 1918, to banking houses: Caja de Credito Hipotecario, 458,107,897 pesos; Banco Hipotecario de Valparaíso, 12,560,626 pesos; Banco Chileno Garantizador, 35,202,539 pesos; Caja de Ahorros de Santiago, 5,093,648 pesos; Caja de Ahorros, de Empleados Públicos, 6,273,666 pesos; Caja de Ahorros de los Ferrocarriles, 4,510,275 pesos; Sociedad Protectora Mútua de Empleados, 2,939,490 pesos; Banco Hipotecario de Sur, 25,973 pesos; making a total of 675,909,311 pesos. Of this amount 326,440,027 pesos, or 48.29 per cent, was held on the rural and city property of the Province of Santiago. The total of mortgages for 1918 was 18,144,805 pesos more than the previous year when it was 657,864,505 pesos.

THE BANCO ITALIANO opened for business on August 16, in Santiago. The bank will also open a branch in Valparaíso.

In the past three years the INHERITANCE TAX has rendered the following amounts: 1916, 634,897 pesos; 1917, 1,544,254 pesos; 1918, 2,015,489 pesos. The President has given to Congress the draft of a law to prevent the evasion of the payment of inheritance taxes.

COLOMBIA.

The Government has authorized the BANCO SUCRE of Medellín to increase its capital from \$1,000,000 to \$2,000,000 gold, pending the issue of 10,000 shares. This bank was founded in 1915, with a capital of \$130,000, divided into 1,300 shares of \$100 each; in 1911 the capital was increased to \$170,000; in July, 1912, to \$300,000; and in November of the same year to \$400,000.

The National Government has authorized the contraction of a LOAN OF \$75,000 gold TO BUILD THE SEWER SYSTEM OF IBAGUE. The loan will be negotiated by the city.

Up to September 3 of the present year the AMORTIZATION OF TREASURY NOTES amounted to \$140,907.

The PROFITS OF THE BANCO de BOLIVAR of Barranquilla were \$37,575 for the first six months of the year. A dividend of \$30,000 was paid to the stockholders.

THE CUSTOMS REVENUE OF BARRANQUILLA from March 1, 1918, to February 28, 1919, amounted to \$3,280,403.

A number of business men, ranch owners, and manufacturers from the Valle del Cauca have founded THE BANCO HIPOTICARIO DEL PACIFICO, with a capital of 600,000 pesos gold (gold peso equals \$0.9733), in the city of Cali. The shares have been so eagerly taken up that it has been decided to raise the capital to 1,000,000 pesos. The bank will deal chiefly in mortgages and loans.

The city council of Medellín has resolved to contract a LOAN OF THREE MILLION pesos gold to use for the following public works: (a) Installation of iron piping for the city drinking water; (b) construction of the Municipal Palace; (c) installation of telephone system of 1,500 telephones; (d) installation of a hydroelectric plant; (e) completion of fairground buildings; (f) paving and cleaning of the plaza of the covered market; (g) electric street railway for the city and suburbs. The ministry of the Government has authorized the loan.

According to a contract made the first part of July by the treasury department with the Girardot Railway Co., replacing the contract made on August 6, 1917, THE TOTAL DEBT IN FAVOR OF THE GOVERNMENT was fixed at \$58,994 pounds sterling (approximately \$4,294,970) on December 31, 1916. It also provides that 40 per cent of the gross profits of the road are to be used to pay off the debt and interest, and 60 per cent for maintenance of the railroad. The government shall have the right at any time to demand payment of the recognized debt and the interest and the coupons of the mortgage loan payable in London.

The President has authorized the following CITY LOANS: 300,000 pesos gold (\$0.9733 value 1 peso gold) for Cartagena to construct a

highway from that city to Turbaco and model primary school buildings; 100,000 pesos for Manizales to build a municipal palace and theater; 75,000 pesos for Ibagué for a metal aqueduct; 10,000 pesos for Santuario, Caldas, for the installation of an electric plant.

Of the 1,304,247 pesos in the BUDGET of the Department of CALDAS 658,588 pesos are for public works, 278,366 pesos being for the railroad without counting the loan of the Banco de Caldas.

THE BUDGET OF THE DEPARTMENT OF CAUCA is 2,158,080 pesos gold for the economic year 1919-20. In this amount is figured the loan contracted with Amsinck & Co., of New York, for 1,000,000 pesos as extraordinary revenue is counted on; 1,123,580 pesos will be devoted to public works.

From August, 1914, to July 31, last, the AMOUNTS OF MONEYS COINED in the mint of Medellín have been as follows: Gold coin, 7,914,172 pesos; silver coin, 705,011 pesos gold value. The latter part of July there were more than 2,500,000 pesos on hand to be coined. The amount minted for the month of July was 1,500,000 pesos, gold, and 40,000 pesos, silver.

For the year 1919-20 THE BUDGETS OF THE DEPARTMENTS OF THE REPUBLIC show for the entire country an expenditure of \$10,404,173 and the revenue of \$10,479,891.

The President has approved the project of a LOAN FOR GIRARDOT for \$50,000 gold for the construction of certain public works for that city.

COSTA RICA.

During the months from January to April of the present year THE CUSTOMS REVENUE reached a total of 616,128 colones (colón = \$0.4653), or 252,661 colones more than that of the like period of the previous year. The revenue was received through the various customs in the following proportion: San José, 346,858; Limón, 136,509; Puntarenas, 115,222; and Sixaola, 17,539 colones.

For the same period—that is, from January 1 to April 30, 1919—the sum of the NATIONAL REVENUES was 3,957,167 colones as against 2,786,168 colones for the corresponding period of 1918, showing an increase of 1,170,999 colones for the present year.

THE EXPENDITURES OF THE GOVERNMENT for the first four months of the present year were 5,055,734 colones, divided as follows: Legislative branch, 64,029; secretaryship of government and police, 508,188; promotion (fomento), 429,368; Foreign Relations, 155,889; Justice, 131,141; Culture, 6,800; Public Charity, 54,711; Public Instruction, 327,055; War and Police, 1,338,281; Navy, 4,990; Treasury, 756,333; Payments on the Public Debt, 1,128,949 colones.

CUBA.

Recent presidential decrees provide for the following APPROPRIATIONS FOR PUBLIC WORKS: An annual appropriation of \$1,200,000 for the construction of the central road which will serve as a connecting link for all of the provinces of the country; \$764,000 for the building of roads from Bartolome to Buena Vista; from Pipian to the town of Vegas; from Santa Clara to Sagua la Grande; from Santo Domingo to Sitiecito, passing through Rodrigo; from Rio Canimar to the Linomar or Cardinas road; from Victoria de las Tunas to Puerto Padre; from Majagua to Tamarindo; and from Manzanilla to the main road of Vicana; an annual appropriation of \$380,000 for three consecutive years for the hygienic and sanitary works of the city of Guantanamo; \$85,000 for the drainage of the lands surrounding the village of Caimanera; \$225,000 for the reconstruction of the Las Animas Hospital of Habana and the erection of a monument to Dr. Finlay at its entrance; \$135,000 for the construction at the National University of a building to be occupied by a School of Pharmacy and the installation of a department devoted to teaching the preparation of serums and vaccination; \$24,000 for a hospital in the city of Nuevitas; \$60,000 for a civil hospital at Jaguani; \$120,000 for repairs to the streets of the town of Limonar; \$120,000 for a similar work in the town of Palma Soriano; \$30,000 for the construction of a prison in the city of Moron; and \$100,000 for the construction in the village of Baire of a park with a monument to the memory of the instigators of the war of independence.

THE NET PROFITS OF THE HABANA ELECTRIC RAILWAY COMPANY during the first seven months of the present year amounted to \$1,574,397. This total shows an increase of \$105,971 over an equal period of 1918.

During the latter part of September of this year two new BRANCH OFFICES OF THE INTERNATIONAL BANK OF HABANA were opened, one at Los Palacios and the other at Banes.

By a law which went into effect August 22 of the current year a SUBSIDY OF \$12,000 FOR EACH KILOMETER OF RAILWAY which may be built for public service from Manzanilla to Niquiero, running through Calicito, Campechucla, Ceiba Hueca, San Ramon, Media Luna and Vicana, was granted.

By a presidential decree of October 4 last the POSTAL TARIFF on first-class mail will be reduced to the prewar rate, thus repealing the decree of October 29, 1917, by which the rate was increased.

ECUADOR.

The President of the Republic has ordered the issue of two series of POSTAGE STAMPS, of six and eight cents value and bearing the

portraits of Gen. I. de Veintimilla and Gen. Eloy Alfaro, respectively. The series of postage stamps to be in circulation in the future will be as follows: (1) 1-centavo stamp, yellow, with the bust of Roca; (2) 2-centavo stamp, green, with the bust of Noboa; (3) 3-centavo stamp, black, with bust of Robles; (4) 4-centavo stamp, red and black, Rocafuerte; (5) 5-centavo stamp, purple, with the bust of Urbina; (6) 6-centavo stamp, light brown, with the bust of Veintimilla; (7) 8-centavo stamp, scarlet, with the bust of Gen. Alfaro; (8) 10-centavo stamp, with the bust of García Moreno; (9) 20-centavo stamp, red and black, with the bust of Espejo or of Carrión; (10) 50-centavo stamp, blue and black, with the bust of Carbo or of Espinosa; and (11) 1 sucre (\$0.4867) stamp, with the bust of Borrero. The stamps of 2, 4, 6, and 10 centavos are equivalent to the 5, 10, 15, and 25 céntimo postage referred to in the rule of the Universal Postal Union.

HONDURAS.

In view of the economic difficulties brought about by the lack of sufficient circulating medium to meet the demands of trade, and the fact that AMERICAN GOLD COIN has just been declared legal tender in the Republic, the President found it necessary to issue a decree on the 13th of last September providing that the banks of issue shall guarantee their bank notes by a reserve of gold or silver American coinage at the rate of 2 to 1 in the same proportion as has been established in their charters. The bank notes shall be accepted and exchanged at this rate so long as the banks are able to import sufficient amounts of American coinage, and they are relieved from the obligation of actual redemption of bank notes for a period of six months from the date of the decree.

According to official data the CUSTOMHOUSE RECEIPTS at Ceiba during 1918 amounted to 1,700,000 pesos and those collected at Puerto Cortes during the same period amounted to 1,031,000 pesos.

MEXICO.

According to data published by the treasury department concerning the issuance of paper currency called PAPEL INFALSIFICABLE, the total issue amounted to 515,000,000 pesos, 450,000,000 of which were printed by the American Bank Note Co., of New York, and 65,000,000 by the treasury printing office of Mexico. Up to June 30 of the current year the monetary commission had collected and burned 348,944,168 pesos. After that date the treasury department took charge of the incineration and up to the 4th of October last it had destroyed 48,175,130 pesos, showing that up to the early part of October there had been burned a total of 397,119,298 pesos, leaving only 117,880,702 pesos in circulation.

The following data show the amount of the transactions carried out by the NATIONAL MONETARY COMMISSION from January 1, 1917, to June 30 of the present year. This commission was established in 1917 to fulfill the functions of a bank in relation to the exchange of money and the issuance of drafts on foreign and domestic markets. During the two years and a half the operations were as follows: Cash on hand, 269,030,481 pesos; commercial paper collectible, 19,386,778 pesos; purchases and sales of drafts on the United States (in dollars), 186,330,340; sales of domestic drafts, 32,433,081 pesos; and remittances in metallic currency, 22,806,472 pesos.

The Mexican press announces that the MEXICAN BANK OF COMMERCE AND INDUSTRY has just been reestablished and has reopened its doors to the public. This banking institution discontinued operations some years ago because its board of directors thought best to place it in liquidation. As the bank has been able to meet all of its obligations and is now on a sound footing it has decided to resume business.

For the purpose of making known to the public daily the RATES OF EXCHANGE, the principal banking institutions of the Mexican Republic have adopted the plan of posting on a bulletin board placed in a conspicuous place, the rates at which exchange is quoted for the different foreign markets.

By virtue of a presidential decree of the 30th of August last, all the moving-picture films have been subjected to the payment of a TAX OF AUTHORIZATION. All established films or any which may be authorized for exhibition or export are subject to this tax, the amount to be fixed by the Government.

PANAMA.

According to figures furnished by the treasury of the Republic, the total NATIONAL REVENUE for the three months' period from July to September of the present year was 1,202,081 balboas (balboa equals \$1), the Government expenditures for the same period being 905,409 balboas, leaving a surplus of 296,672 balboas. In accordance with the terms of decree No. 76, of 1919, 75 per cent of this surplus is to be used for the construction of public highways and 25 per cent for unforeseen expenses. The amount to be used in the construction of roads will be 225,504 balboas.

PARAGUAY.

THE NET PROFIT OF THE BANK OF THE REPUBLIC for the first half of the present year amounted to 349,720 pesos in gold coin (gold peso equals \$0.9848). This sum will be divided as follows: Reserve fund, 34,972 pesos; directorate, advisory committee and other dispositions, 31,475 pesos; and 280,000 to be divided as a

7 per cent dividend among the stockholders, leaving a surplus of 3,273 pesos to be carried forward as a balance. The authorized capital of this institution is 20,000,000 gold pesos, the subscribed capital is 6,000,000, and the reserve 1,500,363 pesos.

The new banking firm known as AGENCIA INDUSTRIAL Y COMERCIAL DE VILLARRICA, recently paid a 10 per cent dividend to its shareholders.

As the price of "quebracho" extract has gone up in the consumers' markets, the President, in accordance with the authority conveyed by Law No. 396, has fixed the EXPORT TAX at 5 gold pesos per ton. This decree went into effect on August 16, 1919.

A commercial review of Asunción announces that TWO BRANCH BANKS will soon be established in the capital—one a branch of the Banco de Londres y de la Plata and the other a branch of the National City Bank of New York. A short time ago a branch of the Bank of Spain and Paraguay was opened in San Ignacio.

SALVADOR.

The President, on August 28 of the present year, approved the amended statutes applying to the OCCIDENTAL BANK of San Salvador authorizing a capitalization of £365,000 sterling, or 4,000,000 silver pesos, divided into 36,500 shares of £10 each, which is all paid in, and an issue of sight notes payable to bearer in silver money of legal tender up to double the amount of the paid-in capital. The bank must hold as security for such an issue a sum equivalent to the authorized paid-in capital.

Beginning with the 1st of November of this year, the export of each 100 kilos of coffee was subject to an EXTRA TAX of \$1 American gold for a period of two years, and 22 centavos (gold) tax was levied during the same time for the export of each 100 kilos of silver, in accordance with a decree issued by the national legislative assembly under date of August 22, 1919.

In accordance with official data, the NATIONAL RECEIPTS AND EXPENDITURES from January 1, 1910 to May 31, 1919, amounted to 115,445,657 and 128,261,280 silver pesos respectively, showing a deficit of 12,815,623 pesos. The receipts were derived from the following sources: Import duties, 55,081,191 pesos; exports, 15,958,318 pesos; liquor revenue, 25,486,350.02 pesos; stamp papers and postage stamps, 3,766,018 pesos; direct taxes, 2,912,349 pesos; sundry services, 6,448,637 pesos; sundry incomes, 5,792,794 pesos; while the expenses were as follows: National assembly, 814,826 pesos; presidency of the Republic, 687,130; departments of Government, 21,899,120; of public works, 14,170,723; of agriculture, 766,639; of foreign relations, 2,359,129; of justice, 6,447,020; of public instruc-

tion, 9,016,067; of public benefit, 6,186,178; of the treasury, 7,425,910; of public credit, 27,811,096; and of war, 30,677,440 pesos.

On the 9th of last September the national legislative assembly passed a law which established the **NEW UNIT OF CURRENCY** based on 0.835 grams gold 900 milésimos fine, represented by the bank notes now in actual circulation. The nickel coins of 1, 2, and 3 cents now in circulation shall be used as fractional currency.

On the same day the national assembly also issued a decree by which the **GOLD COINAGE OF THE UNITED STATES OF AMERICA** is declared legal tender. The bank notes of the United States representing dollars in value will circulate freely in the Republic and the established banks of the country shall accept them as payment of their credits and transactions connected with exchange and drafts. This provision does not affect the right of the banks to collect the usual commission for exchange. For the purpose of carrying out these provisions, the United States dollar will be valued as 2 colones, represented by the present bank notes. Obligations contracted in coin, either within or without the Republic, are to be liquidated within its territory in American gold, or in colones at the rate of exchange on the date on which payment is made. If, on the expiration of the extension of time at present granted to the bank notes, the gold coins representing the multiple of the colon have not yet been coined, the banks will meet their obligations by exchanging their bank notes for American gold coined at the rate of 2 colones for each dollar.

By a legislative decree dated September 16, 1919, the introduction of **GOLD COINS OF THE UNITED STATES OF AMERICA** into the country is declared free of every customhouse duty as well as all consular fees, and such banks, companies, and private persons as may desire, may order these coins without any restriction whatever.

In accordance with the provisions of the monetary law published in the official journal on the 16th of last September, the department of the treasury and public credit has declared the **EXPORTATION OF SILVER** by private parties will be free of duty, providing that the exporters guarantee to the entire satisfaction of this department that an importation of American gold equal to the sum received for the silver will result. For purpose of such transactions the rate of exchange has been fixed for the time being at \$1.05 per troy ounce, or 76 cents for each peso.

URUGUAY.

According to the balance reported for July, the **AVERAGE STOCK OF GOLD** deposited in the several banks of the Republic during that month amounted to 55,114,752 pesos, an increase of 5,495,076 pesos over the record of the previous month, which only

amounted to 49,620,676 pesos. Of this total, 46,369,500 pesos belong to the Bank of the Republic and 8,745,252 pesos belong to private banks. By July 31, the stock had reached the amount of 59,442,000 pesos.

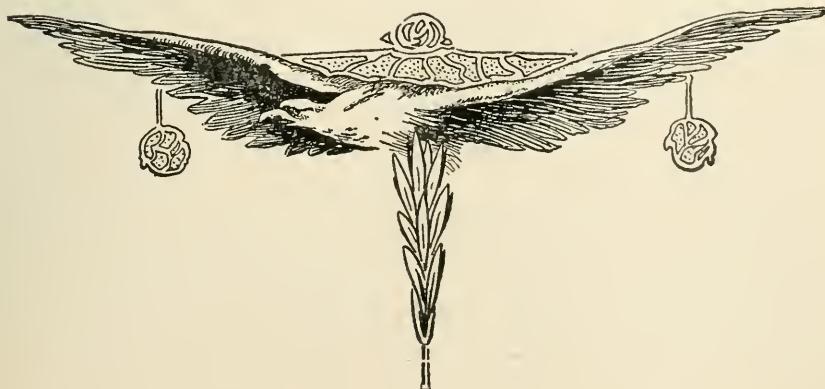
During the month of July of this year the ASSETS OF THE BANK OF THE REPUBLIC amounted to 230,102,884 pesos, distributed as follows: Capital to be paid in, 8,258,939 pesos; cash on hand, 51,414,358 pesos; loans, 17,842,800 pesos; notes discounted, 1,847,030 pesos; sundry accounts, 4,234,004 pesos; overdrafts, 82,444 pesos; real estate bank holdings, 1,192,392 pesos; bank fixtures and equipment, 424,844 pesos; sundry debtors, 802,426 pesos; uncollected accounts 52,832 pesos; credits to be collected at the branch offices, 219,768 pesos; and deposits, 93,075,361 pesos.

As a result of the increase of traffic over the lines of the CENTRAL RAILROAD OF URUGUAY this company has earned an excess over the amount of 6 per cent interest which the State guaranteed to the company as a limit of profit on the invested capital. This excess amounts to 100,000 pesos for the first six months of the present year and will be turned over to the Government to apply to the public revenue.

VENEZUELA.

The Compañía Venezolana (shipping company) declared an EXTRA DIVIDEND of 10 per cent to the stockholders as a result of the profits of the first six months of 1919.

During the season of 1919 THE TAX ON PEARL FISHING amounted to 289,160 bolivares, or 91,570 more than in 1918. In the above-mentioned period 3,402 permits for dragnets were granted and 548 for divers. The value of the pearls exported in the season of seven months was between 6,000,000 and 7,000,000 bolivares (bolivar equals \$0.1930). This year a number of pearls of the finest quality were found, two of them being sold for more than \$20,000 in the first sale.





INTERNATIONAL TREATIES

BOLIVIA-BRAZIL.

By the passage of the law of the 10th of September the Brazilian Congress approved the TREATY OF EXTRADITION CONCLUDED BETWEEN BOLIVIA AND BRAZIL in Rio de Janeiro on June 3, 1919.

BRAZIL-UNITED STATES.

The CONVENTION REGARDING POSTAL MONEY ORDERS was signed by the representatives of BRAZIL and the UNITED STATES on the 17th of October, 1919, in Rio de Janeiro.

BRAZIL.

By the passage of the law of August 27th the Congress of BRAZIL approved the INTERNATIONAL CONVENTION FOR THE UNIFICATION OF THE LAW RELATING TO BILLS OF EXCHANGE, signed at The Hague July 23, 1912. The Government of Brazil will ratify this pact only after the text of the Uniform Regulations to which the Convention refers have been made a law.

BRAZIL-URUGUAY.

By decree of August 27, the Government authorizes the competent municipal authorities to carry out the OFFICIAL AGREEMENT signed May 1, 1918, by the municipality of Jaguarao, Brazil, and the municipal department of Cerro Largo, Uruguay, regarding the navigation of the River Jaguarao, the boundary line between the two countries.

CHILE-MEXICO.

By decree sanctioned October 13, 1919, the Mexican Senate approved the CONVENTION REGARDING INTERCHANGE OF DIPLOMATIC POUCHES made between CHILE and MEXICO, May 16, 1919

PANAMA-JAMAICA.

THE CONVENTION ON PARCEL POST between PANAMA and JAMAICA, based on the convention of the Universal Postal Union signed in Rome, April 26, 1906, was signed on March 8, in Jamaica, and in Panama on April 24. The terms of the convention permit the sending of parcel-post packages up to 11 pounds from Jamaica to Panama, and from Panama to Jamaica; packages up to

5 kilograms, not only in service between the two countries, but in transit to other points. The postage on packages from Jamaica to Panama will be as follows: Each package not exceeding 1 pound in weight, 6 pence, and for each pound or fraction in excess thereof, 6 pence. From Panama, for each package not exceeding 460 grams in weight, 12 centimos of a balboa (balboa equals \$1), and for each additional pound or fraction thereof, 12 centimos of a balboa. The convention may be abrogated one year after notification to that effect made by either of the contracting parties.

ECUADOR.

On March 31, 1919, the exchange of ratifications of the TREATY OF FRIENDLY RELATIONS, COMMERCE, AND NAVIGATION was made between Japan and Ecuador. The treaty was arranged in Washington August 26, 1918, and was published in the Official Register of the Republic of Ecuador in the issue of July 22, 1919.



ARGENTINA.

On September 26 last congress enacted a law prescribing, in accordance with the new census, that, in 1920, the HOUSE OF DEPUTIES shall consist of 158 members, or at the rate of one member to each 49,000 inhabitants or fraction thereof not less than 16,500 inhabitants. The present house of deputies has 120 members.

BRAZIL.

A decree of the President of the Republic of September 10 last provides that until December 31, 1922, there shall be admitted to CIVIL REGISTRY all persons born in Brazil from January 1, 1889, to December 31, 1922, who have not been registered in conformity with the local laws in which the births referred to occurred. Registrations may be made at the request of the father, mother, or attorney.

COLOMBIA.

On September 11, 1919, the President signed a law imposing certain OBLIGATIONS ON SOME CORPORATIONS AND PUBLIC OFFICIALS. According to this law the supreme court and the courts of the judicial districts shall send annually to congress a detailed report covering the debts, omissions, contradictions and inconveniences that may have been noted in the laws and decrees

whose application has been construed by the judicial power, and shall formulate new decrees or amendments which they may deem proper to introduce in order to offset such omissions, incongruities and contradictions, or for the purpose of correcting same. At the close of the report they shall formulate in precise language said decrees or amendments in such a way as they believe they should be enacted into law. Said bills shall be referred to the proper committees of the two Houses for consideration, together with the reports which they annually submit to congress. The heads of the departments will submit the proposed bills to congress with such amendments as they may deem expedient.

CUBA.

Under date of August 25 last, the President of the Republic amended the **TEACHERS' RETIREMENT LAW**, which affects some 108 teachers in active service in the public schools of the Island—those employed in the different branches of primary and special instruction, as well as officers of the department of public instruction who have quit teaching to serve in that department, and also technical instructors who, without having occupied positions as teachers, have been appointed to render service in primary or special instruction, and those who have rendered service up to the time of the promulgation of the law. The right to be retired is granted to the following: 1, Teachers who have served over 25 years and who request pensions; 2, those who before the promulgation of this law were 60 or more years of age and who have taught not less than 10 years; 3, those who request retirement because of physical or mental unfitness; 4, those who have been or may be rendered unfit for the exercise of their calling regardless of the time of service; 5, those who have been declared incapacitated because of physical or mental defects; and 6, those who are afflicted with a contagious disease. A pension granted to a teacher shall, on the death of the latter, go to his widow and children or relatives of the first degree, provided said teacher has served not less than five years. The State may pension individuals who have taught more than 25 years and who are over 60 years of age, provided they are physically or mentally incapacitated for the exercise of their calling. The amount of pensions shall be in accordance with services rendered, namely, those who voluntarily request retirement after more than 25 years of service, 40 per cent of their salaries. The following scale will apply to those comprised in classes Nos. 1, 2, 3, and 4 already mentioned: Class 1, those with over 25 years of service, 80 per cent of the salary; class 2, those serving over 25 years, 75 per cent; class 3, those serving from 15 to 20 years, 70 per cent; and class 4, those serving from 10 to 15 years, 60 per cent. The right to be retired with a pension can not be denied, transferred, or mortgaged in any way whatever.

DOMINICAN REPUBLIC.

The Government of the Dominican Republic issued a decree on September 25, 1919, prescribing that the new CUSTOMS IMPORT AND EXPORT TARIFF shall go into effect on January 10, 1920. Import duties will be collected on all articles not specifically exempted therefrom. Duties, surcharges, and fines are payable in United States gold or currency, or in the equivalent of said money in Dominican coin at the rate of 5 Dominican pesos for one United States gold dollar. The complete law is published in the Official Gazette of October 1, 1919.

URUGUAY.

In accordance with a law of September 1, which went into effect on the 4th of that same month, during the fiscal year 1919-20 all real estate of the Department of Montevideo, under whatever title owned, must pay a REAL ESTATE TAX at the rate of 6½ per thousand on the appraised value.



PUBLIC INSTRUCTION AND EDUCATION

ARGENTINA.

On September 8 last the national board of education decided to apportion the 393,440 pesos, currency, appropriated by Congress for the CONSTRUCTION OF SCHOOL BUILDINGS, as follows: 300,000 pesos, currency, for use in the provinces, and 93,440, pesos currency, for the territories. The Buenos Aires appropriations for this purpose is 1,800,000 pesos.

BRAZIL.

The seventeenth anniversary of the founding of the Academy of Commerce of Rio de Janeiro was fittingly celebrated by the opening of a chair of economic science. This institution, which began as a night school frequented by young men from the business houses of the city, later opened a day school for the purpose of teaching the sons of prominent Brazilian business men the principles of business, so that they might intelligently direct their fathers' affairs in due time. The federal law of January 9, 1905, recognized the official character of the diplomas conferred by this academy, and it now offers its students a complete course of commercial education.

CHILE.

The following EDUCATIONAL STATISTICS for 1918 are taken from the Memorial of Public Instruction as presented to the National Congress:

The register of students of the different schools in the university was as follows: Law school, 1,004; school of engineering, 238; school of architecture, 73; school of medicine, 890 men and 58 women; school of pharmacy, 233; school of fine arts, 620; Teachers' College, 319 men and 389 women. Among those registered in this institution were 4 Panamans, 2 Venezuelans, 2 Ecuadorians, and 4 Argentine girls.

The register of the liceos of public education showed 18,717 students, or 713 more than shown by the register of 1917. The high schools, city and country, had 327,825 students. There were 3,140 primary schools open. The 6 normal schools for men had a total of 850 students, and the 9 normal schools for women had 1,337; the manual training schools had 2,395 students.

The number of students in the 11 commercial schools was 2,772; and the students in the physical culture institute numbered 300.

The BUDGET OF TOTAL COSTS of the department of public instruction in 1918 amounted to the sum of 37,073,214 pesos currency, (paper peso = \$0.195), and 176,446 pesos gold (gold peso = \$0.365). The budget of 1919 will be 44,425,530 pesos currency, and 140,000 pesos gold, including the sum of 6,000,000 pesos to meet the building requirements.

Señor Manuel Foster A., on behalf of the mining companies, Chile Exploitation Co. and the Bradden Copper Exploitation Co., has presented to the directorate of the School of Mines of Copiapó, for the ENCOURAGEMENT OF INDUSTRIAL EDUCATION, 25,000 pesos, the third installment of this size making in all 75,000 pesos presented for this object. The ministry of industry has expressed its gratitude to the donating companies.

COLOMBIA.

The Colombian Minister to Argentina, on behalf of his Government, has engaged the services of Señor Juan Papaiano, an agricultural expert, to direct THE AGRICULTURAL COURSES in Bogotá. The course will contain the following subjects: Farming accounts, agricultural technology, and agricultural chemistry and analysis.

The law of August 23 calls for the establishment of an X-RAY EQUIPMENT in the College of Medicine of Bogotá.

CUBA.

A law passed by the national congress and approved by the President on the 11th of August of the present year provides that the

National University of Habana will hereafter be authorized to confer HONORARY DEGREES in some branches of study on those natives or foreigners who have distinguished themselves by rendering important service to the cause of mankind or to Cuba. These degrees will be awarded at the request of the President of the University or the Dean after being ratified by a majority of the Faculty.

DOMINICAN REPUBLIC.

An executive decree of September 10 modifies article 31 of the General Law of Studies as follows: To be admitted to take the examination required to obtain the DEGREE OF DENTAL SURGEON the applicant should present an Official Certificate of qualification in the higher primary studies, and also a diploma from a normal school, in the following subjects: Physics, chemistry, botany, elementary anatomy, physiology and general hygiene, or those of the secondary course of studies. By this same decree the subjects of dental pharmacy and materia medica are added to the course in the school of dentistry.

PERU.

A presidential decree of September 20, 1919, established in the University of San Marcos, of Lima, certain courses of SPECIAL LECTURES. The faculty of the institution will give permission, with the approval of the university council, to persons qualified under the law to be professors, the privilege of instituting such special lecture courses as will conform to the general curriculum. The decree also provides that in addition to the regular body of the university council, there shall be two members, holding the degree of doctor, elected by the student body.

URUGUAY.

The following persons have been chosen to compose the NATIONAL COMMISSION OF PHYSICAL CULTURE, and, beginning with August 1, last, to serve for two years from that date: Don José Battle y Ordoñez, Dr. César Miranda, Dr. Alberto Galeano, Dr. Francisco Ghigliani, Dr. José María Delgado, Dr. Hector Mazzera, and Dr. Juan Blengio Rocca.

Dr. Washington Beltrán has placed before the house of representatives a bill relating to the ESTABLISHMENT OF 500 SCHOOLS, 100 of which shall be city schools and 400 rural schools. In accordance with this plan the general department of primary instruction shall have charge of the proper distribution of them, and in order that it may be done equitably the percentage of illiterate inhabitants and the difficulties of the means of communication, of each area, is required to be taken into consideration.

VENEZUELA.

In order to ENCOURAGE PRIMARY EDUCATION in the parts of the Republic where there are no public primary schools, a prize of 100 to 120 bolivares has been created for individuals who will undertake the primary education of children under 14 years of age.



GENERAL NOTES

ARGENTINA.

The senate of the Argentine congress has confirmed the appointment of Dr. Ramon Mendez as justice of the SUPREME COURT.

In September last the small model of the MONUMENT TO RIVADAVIA, the work of the sculptor Rogelio Iruiria, and which is to be erected in Buenos Aires, was placed on exhibition in the great hall of congress in the national capital.

The FIRST ECONOMIC NATIONAL CONFERENCE, organized under the auspices of the federated boards of trade, met in Buenos Aires on September 22, 1919.

BOLIVIA.

The chamber of deputies has passed a resolution providing that a PICTURE OF THE HERO OF AYACUCHO, by Michelena, offered to Bolivia by the Government of Venezuela, shall be placed in the hall of sessions as a token of fraternity and a recognition of the liberator of upper Peru.

BRAZIL.

By order of the department of agriculture the bureau of the census has sent to the Brazilian consulates abroad the RULES AND REGULATIONS GOVERNING IMMIGRATION which are now in force and which contain information on the qualifications which the immigrants must possess and the aid which the Government will offer them from the time of their arrival.

During the first six months of the current year the census bureau furnished employment at different places in the country to 1,013 NATIVE LABORERS and to 515 foreigners who were in need of work.

THE ENGINEERS' CLUB OF PARA was established at Belém a short time ago under the presidency of Dr. Enrique A. Santa Rosa.

THE FIRST NATIONAL CONGRESS OF ECONOMIC EXPANSION met September last at the time of the annual fair at Rio de Janeiro. This congress was divided into 16 sections—namely, natural wealth, mining industries, animal industry, agricultural industry, manufacturing industry, commerce, trade, insurance, statistics, post office, telegraph and telephone, transportation, interstate communication, expositions and fairs, foreign expansion, credits and banks, commercial and industrial associations, chamber of commerce, and professional teaching.

CHILE.

One of the institutions for public welfare in Chile, which owes its existence to women's efforts is the RED CROSS OF CHILE. This society, founded in 1914, has been recognized by the Government and is affiliated with the International Red Cross; the president is Señora Dona Sofía Huneeus. Its dispensary as early as 1917 had attended more than 14,000 cases, and is open to the public three times a week acting as a secondary Government hospital. There is a large school also, where the Chilean girls under competent instructors are trained in the care of the sick.

The first part of September the famous Chilean aviator, Capt. Armando Cortínez Mujica, commissioned by his Government to visit foreign countries to study aviation, left Chile to attend foreign aviation schools, visit factories and flying fields and gather all the information and data relative to new inventions in aircraft, in fact to learn about everything which will contribute to the PROGRESS OF AVIATION in Chile. Capt. Cortínez expects to bring home on his own account a large plane for flights with passengers, possibly making the last stage of his journey from Buenos Aires to Chile by air.

On September 14 the FIRST NATIONAL CONGRESS OF FREE MILK STATIONS (GOTAS DE LECHE) took place. The congress took up the questions of propaganda for more free-milk stations throughout the country; to make known to the public the purposes of the stations and receive the public's cooperation in the centralization of the different stations; the care of sick babies; inspection of homes; proper provision of milk in cities; treatment of parents suffering from infectious diseases, care of children, vaccination, and in the reduction of infant mortality.

COLOMBIA.

The senate has nominated a commission to erect a MONUMENT TO RICAURTE, the hero of San Mateo, in one of the plazas of Bogotá.

The Ecuadorian Government has made a GIFT TO THE BOLÍVAR MUSEUM of a painting in oil by a famous Ecuadorian artist,

representing Chimborazo, from whose heights the liberator looked down upon the natural beauties of the country.

The well-known sculptor Anderlini is at work on a **STATUE OF THE LIBERATOR** to be erected in the Parque de Bolivar of Medellin. The pedestal will be an exact reproduction of the pedestal of the statue of Marcus Aurelius in Rome.

THE NEW ENVOYS PLENIPOTENTIARY of Colombia to Caracas and Santiago are Sres. Carlos Cuervo Márques, and Dr. Carlos Uribe.

According to official figures **THE POPULATION OF THE DEPARTMENT OF CALDAS** is 428,138 inhabitants, of whom 104,688 are farmers, being 24 per cent of the population.

The Government of Ecuador has proposed to Colombia the erection of a shaft on the line of the Carchi to commemorate the conclusion of the agreement regarding the **COLOMBIAN-ECUADORIAN** frontier, as a mark of friendship between the two countries.

A COMPANY OF AERIAL NAVIGATION has been formed in Manizales by well-known citizens. Delegates will soon be sent to the United States to study aviation and buy the necessary equipment for the company.

To stimulate military ambition and patriotic veneration for the liberators of the country in the official personnel of the army, the President of the Republic on August 28, in commemoration of the battle of Boyacá, ordered a **MILITARY DECORATION**, consisting of a Maltese cross 5 centimeters in diameter, with the national flag in the center surrounded by this inscription "Centenario de Boyacá." The War Department will determine upon whom the decoration shall be bestowed.

According to the census taken last year **THE POPULATION OF THE DEPARTMENT OF THE ATLANTIC WAS** 134,673, of whom 64,554 represent the population of Barranquilla.

A SANITARY SOCIETY OF BOGOTÁ has been formed to promote sanitary conditions in the city and to eliminate the causes of infectious diseases, such as impure water, etc.

In Barranquilla a public subscription is being raised to erect a statue of **SANTANDER**.

COSTA RICA.

The official gazette of the National Government published a short time ago the translation of **A GEOGRAPHICAL AND GEOLOGICAL TREATISE ON COSTA RICA** written by Donald F. McDonald and other American geologists.

In accordance with a legislative decree the President gave to the charity known as La Gota de Leche, the **FREE MILK AND CHILD**

WELFARE STATION of San José, a lot in the city for the building to be constructed for the society.

By a decree dated September 14, the Provisional President of the Republic called ELECTIONS FOR PRESIDENT of the Republic and representatives to the national congress on December 7. This decree also calls the people to elect councilmen and attorneys general on December 14.

Senor Licienciado don Francisco Aguilar Barquero, holding the office of President of the Republic as third alternate, the middle of September organized his CABINET as follows: Secretary of Foreign Relations, Senor Licenciado Andrés Venegas; government and police, Licenciados Carlos María Jiménez; treasury and commerce, Licenciado Carlos Brenes; public instruction, Prof. Joaquín García Monge; war and navy, Licenciado Aquiles Bonilla; and promotion, Licenciado Pedro Pérez Zeledón.

CUBA.

By a decree of the President, under date of September 19 last, the RULES AND REGULATIONS FOR THE SANITARY SERVICE, prepared by the chief of staff of the sanitary section, were declared in force, thereby repealing those provisions of 1909 promulgated by the extinct rural guard, so far as the army is concerned, and which are contrary to the new rules and regulations.

A commission has been appointed to organize the festivities in celebration of the FOUR HUNDREDTH ANNIVERSARY OF THE FOUNDATION OF HABANA to take place November 16.

A list of the NAMES OF THE STREETS OF HABANA WHICH HAVE BEEN CHANGED has been published by order of the mayor of the city, in accordance with the executive requirements of the municipal corporation, so that in all future public decrees or documents these streets may be called by their new names.

In accordance with data published by the department of agriculture, industry and labor, there occurred in Cuba, during the last fiscal year, 7,241 cases of ACCIDENTS WHILE AT WORK, distributed by provinces as follows: Pinar del Rio, 171; Habana, 2,718; Matanzas, 1,089; Santa Clara, 1,366; Camaguey, 460; and Oriente, 1,437.

DOMINICAN REPUBLIC.

On October 4 a LITERARY ENTERTAINMENT was given in the Casa de España in honor of the well-known Spanish poet, Don Francisco Villaespesa, who is on a tour through several Latin-American countries.

By order of the chief of sanitation, on September 26, Article I of the SANITARY CODE, made July 15, 1919, was changed. The

cities of the Republic are divided into four groups for the purpose of sanitary classification in relation to the number of their inhabitants: Towns of less than 1,000 persons belong to class A; from 1,000 to 5,000 to class B; and from 5,000 to 10,000 to class C; those over 10,000 to class D.

In order to contribute to the beautifying of the CATHEDRAL OF SANTO DOMINGO several wealthy Dominicans have presented six statues to the cathedral.

The city council of Santo Domingo has resolved to ask for bids for the construction of AN ELECTRICAL PLANT.

By resolution of the city council of Santo Domingo on October 6, article 59 of the TRAFFIC REGULATIONS was changed from the original form as published July 11.

ECUADOR.

Gen. Gorgas expressed his willingness to take charge of the work of SANITATION OF GUAYAQUIL in the conference with the municipal commission. Gen. Gorgas was nominated director general of sanitation, and Col. Wrightson, inspector. The nominations will be confirmed as soon as the Ecuadorean congress authorizes the council of Guayaquil to contract the necessary loan to begin the work.

The mixed commission charged with selecting the topics for discussion by THE THIRD CONGRESS OF STUDENTS OF GREATER COLOMBIA have approved the following: (1) Attitude of Greater Colombia in regard to the achievements of civilization in the United States and the Central American Republics. (2) Discussion of the methods to be employed by the scholars of Greater Colombia to instruct the workmen in reference to the present industrial movement to preserve their rights. (3) Study of pathology of tropical diseases. (4) The university procurator as patron of the humanities. (5) Consideration of means to reform the course in economic science. (6) Public health and charity, with especial reference to child welfare. (7) Sexual education. (8) Necessity of a comparative table of the laws of the different Latin-American States. (9) To cultivate an entente among the nations of Greater Colombia whereby outside cultural influences may work in conjunction with the national development, and preserve the many-sided similarity of these peoples. (10) Special study of American sociology. (11) Means for developing national pride, the foundation of national greatness.

GUATEMALA.

According to a report just made by the general sanitary inspector to the president of the superior council of sanitation, the SANITARY

CONDITION OF THE SOUTHERN ZONE OF THE REPUBLIC is quite satisfactory, owing to the fact that there have already been organized departmental and local boards of sanitation which are using every effort to exterminate mosquitoes, to carry out thorough sanitation in all the towns, and to exercise everywhere the strictest vigilance in order to prevent the invasion and spread of any epidemic.

The *Diario* of Central America has just published a picture and description of the MONUMENT TO TECÚN-AMAN, the work of a Guatemalan artist, which will be erected on the hill of Baul de Quezaltenango. This monument is an allegorical conception of Tecún-Aman, the typical representative of the prehistoric races which occupied the present territory of the Republic of Guatemala.

In accordance with the rules and regulations issued on the 15th of last September, Señor Licenciado José Pinto has taken possession of the office of PRESIDENT OF THE CENTRAL AMERICAN INTERNATIONAL BUREAU as delegate from Guatemala, which he will hold until September 14, 1920.

The first of last September the NATIONAL EXHIBITION OF PAINTINGS, demonstrating the advancement of the native artists, was held in Guatemala.

At the time of the celebration of the anniversary of national independence, September 15, the corner stone was laid at Coban of a MONUMENT TO MANUEL TOT, a native Indian patriot of Guatemala.

Plans for the construction of a LARGE BATHING RESORT at Almolonga have been completed. It will be modeled after the most modern similar establishments in Europe and the United States with hotels, baths, and gardens and other attractions which altogether will cover an area of 60,000 square meters.

HAITI.

A press dispatch states that the CRÉDIT LYONNAIS, the well-known French financial corporation, will soon establish a branch in Port au Prince.

A license has been granted by the State to M. Horatius Laventure for the establishment in Port au Prince of a NEW PRIVATE HIGH SCHOOL which will be known as "College St. Vincent."

Under date of September 18 *Le Matin*, a daily newspaper published in Port au Prince, gives an account of the delivery in that city of a bag of dispatches by an airplane, the FIRST AIR MAIL TRIAL ever attempted in Haiti. The plane coming from an army post in the northern part of the country dropped the mail bag on the Champ de Mars and returned whence it came without landing.

The civil engineer in charge of the survey of the projected RAILWAY LINE from Port au Prince to Mariani has completed his work

and submitted his report to the authorities. According to the last survey made the line will skirt the sea coast in several places in order to avoid sharp curves.

HONDURAS.

On the 5th of last October the ministry which had been in charge of the Government formally delivered the THE PRESIDENCY OF THE REPUBLIC to the constitutional Vice President, Dr. Francisco Bográn.

The new President, Dr. Bográn, has already appointed his cabinet consisting of the minister of the interior and justice, Dr. Vicente Mejía Colindres; minister of war and navy, Gen. Vicente Tosta; minister of foreign relations, Dr. Jesús M. Alvarado; minister of the treasury and public credit, Dr. Remigio Díaz Zelaya; minister of industrial promotion, public works and agriculture, Dr. Miguel Paz Barahona, and minister of public instruction, Señor Eusebio Fiallos.

Mr. Julián R. Cáceres took charge of the GENERAL NICARAGUA CONSULATE AT TEGUCIGALPA about the middle of last September.

THE MUNICIPAL LIBRARY, "JEAN LINDO," was opened at Comayaguela during the latter part of September in accordance with a decision of the municipal council at the request of Alderman Señor Salvador Turcio R.

MEXICO.

By a presidential decree, under date of August 25 last, the rules and regulations reorganizing the department of the SECRETARY OF THE TREASURY AND PUBLIC CREDIT have been issued. The performance of the duties which devolve upon the secretary of this department has been distributed among the offices of correspondence and personnel, and the following departments: Administrative, custom house, stamp tax, special taxes, public lands, credit, judicial, legislative and statistical affairs, and of the private secretary.

For the purpose of stimulating the automobile industry, and in order that it may attain the importance which it has acquired in other countries in the near future, there has just been organized in the capital an association called the AUTO CLUB OF MEXICO, composed of persons prominent in automobile affairs. This is the first club of the kind to be established in the country.

By a special decision of the President, rules and regulations have just been drafted governing the CENSORSHIP OF MOVING PICTURES similar to those existing in the principal cities of Europe and America. These provide for the creation of a committee of censorship of reputable persons who shall have charge of the examination of the nature and quality of the films which are designed either for import, export, or exhibition in the country.

On September 27 the NATIONAL ASSOCIATION OF YOUNG MEN was opened in the city of Mexico with appropriate ceremonies and has been installed in a large building on Humboldt Street. The executive committee of this new educational association is headed by Mr. Fernando Galván.

The Mexican Government intends to introduce into the United States a MOVING PICTURE PROPAGANDA in order that the Mexican people may become better known to the North Americans, and so that they may obtain an exact idea of the growth and development accomplished by their neighboring sister Republic.

The firm called the South and Central American Intelligence Co., of London, England, is now preparing a BOOK OF MEXICO, which is to circulate extensively in England in order to promote further commercial exchange between the two countries. With this end in view the company has requested the state department of Mexico to send all kinds of data on the agriculture, industry, and commerce of the Mexican nation.

According to a decree of August 15, 1919, issued by the President of the Republic, in the future the department of archeology and ethnography will be known as the DEPARTMENT OF ANTHROPOLOGY. The same decree amplifies the duties of the department, adding the following subjects to its jurisdiction: (1) Gradual acquisition of knowledge in reference to racial characteristics; manifestations of culture and intellect; languages and dialects; the economic situation and the conditions of the physical environment of the present and past native towns of the Republic. (2) Inquiry as to means to promote the economic, physical and intellectual development of these towns. (3) Steps to be taken looking toward the drawing together of the races, cultural fusion, common language, and the economic equilibrium of these groups.

NICARAGUA.

On September 17, the ANTIHYDROPHOBIA INSTITUTE was opened at Managua. This was donated to the Government of Nicaragua by the President of Mexico and has been called the Caranza Antihydrophobia Institute.

A board has been appointed by the National Government at Managua, which will be presided over by Señor Lucius E. Rivas, for the INSPECTION OF MOVING-PICTURE FILMS which may be introduced into the country for exhibition.

Two physicians, members of the SANITARY COMMISSION of the Rockefeller Institute, who have been sent to Central America for the purpose of studying yellow fever and to teach prevention and the methods of combating the disease, visited San Salvador the latter part of September at the cordial request of the President.

A SOCIETY OF CULTURE has been organized at Chinandega, composed of men and women, having for its purposes the correct pronunciation of the Castilian language, the abolition of alcoholic drinks, and the promotion of hygiene.

The President has approved a law which provides for the taking of a new NATIONAL CENSUS in conformity with the provisions of the fourth Pan American Congress which met at Buenos Aires in 1910.

PANAMA.

Señor Gen. Manuel Quintero V. assumed his duties as SECRETARY OF PROMOTION about the middle of September.

A Panaman paper states that the city government of Panama has been presented with a BUST OF THE LIBERATOR, SIMON BOLÍVAR, by the vice consul of Venezuela in that city.

At a meeting of the city council of Panama, held the last of September, laws were made for the improvement of the public parks of the city and the erection of a STATUE OF GEN. TOMÁS HERRERA in the plaza which bears his name. The sum of 12,500 balboas (balboa=\$1) is to be expended on the equestrian statue of bronze, with a marble pedestal containing inscriptions relative to the statesman's life. The city council also decided to turn the Plaza de Herrera into a children's playground, which will now be known as the Parque de Herrera. The sum of 6,000 balboas was voted for this purpose.

A resolution of the city council changed the name of the Plaza Nacional de Panama to the PLAZA DE FRANCIA, in honor of the French Republic.

Presidential decree No. 173 of August 20 supersedes that of May 20, in relation to TELEGRAPH RATES, stating that from September 1 last the rate in effect on the national lines for messages between Panama and Colon shall be the same as the rate between other parts of the Republic, thus making a uniform charge.

PERU.

By a contract entered into with the company engaged in the guano industry, a Birmingham firm has taken charge of the construction for the Peruvian Government of three ILLUMINATED BUOYS to be used at Punta de Coles and Camotal (a cliff located between the Island of San Lorenzo and La Punta, in the Bay of Callao), and another lighting and whistling buoy for the Roca del Piñero. The management of the lighthouses on the Peruvian coast has been intrusted to the guano company by the Government for the sake of economy and efficiency, since the firm has already installed a revenue-cutter service for the purpose of guarding both the birds and the industry, and the lighthouses are situated on the majority of the

islands which produce great quantities of guano. It now has charge of the following lighthouses: The second-class one at Lobos de Afuera; those of the fourth class of Lobos de Tierra, Guanape, Mazorca, and Palominos; and the fixed lights of the ports of Supe and Huarnay. It will also have charge of the lighthouse of La Punta (Callao) as soon as it is open to the public service.

There has just appeared at Lima A REVIEW FOR CHILDREN, called "El Mundo Infantil," which proposes to publish both entertaining and instructive reading. The editors are Luis C. Infante and José J. Motti.

On September 24 the national assembly met at Lima, having been called by the President for the purpose of taking proper measures for the reorganization of politics, industry, economics, foreign credits, internal progress, civic improvement, education, and justice.

The National Peruvian Commission, which has charge of promoting the attendance at the South American Congress of Railroads which will be held at Rio de Janeiro in 1922, has decided to start the work at once, and has already appointed an executive committee, composed of Señors Enrique E. Silgado, president; Ricardo Tizón y Bueno, secretary; and Juan Antonio Loredo, treasurer. This national commission proposes to hold a CONFERENCE OF ENGINEERS AND BUSINESS MEN in 1920 in order to discuss the advisability of holding a congress of railroads in 1921, at the time of the celebration of the centennial of national independence, to study the problems of internal railroad communication, of the merging of the national systems with those of other countries, and to secure the concurrence of the Peruvian people in this international congress. All communications in connection with this matter may be addressed to the Sociedad de Ingenieros, Portal de Botoneros 162, Lima, Peru.

SAN SALVADOR.

By a legislative decree, under date of September 10, 1919, the TITLE OF CITY has been conferred on the town of Armenia, in the district of Izalco of the Department of Sonsonate. This town, formerly called Guaymoco, has at present 13,500 inhabitants and is situated on a plateau 470 meters above the level of the sea. It has a very extensive municipal jurisdiction, as it comprises the following cantons: La Azacualpa, La Puerto, Las Tres Ceibas, Las Crucitas, Los Mangos, El Cerro, El Guayabo, El Rosario, and El Valle Nuevo. Its lands are exceedingly fertile and its inhabitants diligent and of regular habits.

URUGUAY.

For the purpose of constructing a BUILDING FOR THE BRANCH OFFICE OF THE BANK OF THE REPUBLIC the

Government has ordered the taking over of the land located at Nueva Palmira.

Dr. Alexander Gallinal has offered to pay to the public charities of Montevideo an amount sufficient to meet the expenses of the construction and installation of a LARGE MARITIME HOSPITAL which shall be devoted to patients afflicted with certain forms of tuberculosis, who will be benefited by the sea air and life in the open near the sea. Plans required for this most worthy work, made possible by the generosity of Dr. Gallinal, will be secured by open competition.

THE FIRST TRANSPORTATION CONGRESS was held at Montevideo August 25. This congress was organized by the Rural Federation, a well-known Uruguayan association devoted to the promotion of progress throughout the country.

The Association of Architects of Montevideo has again taken up the question of a PAN AMERICAN CONGRESS OF ARCHITECTS—a plan which had been considered for some years past, but which exigencies connected with the war compelled to be abandoned. This long-deferred meeting will hold sessions in the Uruguayan capital from March 1 to 7, 1920, under the auspices of the President of the Republic, the counsel of the administration, the ministers of public instruction, public works, and of foreign relations. The executive committee of the congress is composed of the following: Horacio Acosta y Lara, president; Jacobo Vásquez Varela, vice president; Fernando Capurro, secretary general; Raúl Lorena Acevedo and Leopold Carlos Agorio, secretaries, their respective offices being located on Calle 18 de Julio, No. 953.

VENEZUELA.

Dr. Francisco J. Duarte has been appointed OFFICIAL SURVEYOR for the Special Boundaries Commission in charge of the settlement of the international boundaries of Colombia and Venezuela.

A committee has been formed in Paris, composed of statesmen and men of letters, to formulate plans for the erection of a STATUE OF MIRANDA AT VALMY. This Venezuelan, whose name has been inscribed on the Arc de Triomphe of the Étoile of Paris, was one of the famous generals of the French Revolution, being responsible for the triumph of the army of the first Republic in the battle of Valmy. Miranda also fought for the independence of the United States, and was the friend of Washington and Alexander Hamilton. He was the forerunner of the movement for emancipation in the Spanish colonies of South and Central America.

SUBJECT MATTER OF CONSULAR REPORTS

REPORTS RECEIVED TO OCTOBER 15, 1919.

Subject.	Date.	Author.
ARGENTINA.		
Foreign trade for 1918.....	1919. June 30	W. Henry Robertson, consul general at Buenos Aires.
Buenos Aires tramways.....	July 1	Do.
Budget of Province of Buenos Aires for 1920.....	July 7	Do.
Argentine wool-growing and manufacturing industries.....	July 9	Do.
Destination of principal Argentine exports, first six months of 1919.....	July 14	Do.
Argentine market for confectionery and chocolate.....	July 28	Do.
Agricultural notes from Rosario.....	July 30	Wilbert L. Benney, consul at Rosario.
Information for American commission firms.....	Aug. 4	Do.
Argentine cereal prices.....	Aug. 5	W. Henry Robertson.
Destination of principal Argentine exports for first seven months of 1919.....	Aug. 9	Do.
Prohibited exportation of cow meat.....	Aug. 11	Do.
Uniform conditions of sale adopted by United States Exporters' Association in Buenos Aires.....	Aug. 12	Do.
Buenos Aires shipping during the year 1919.....	Aug. 20	Do.
Business conditions in Argentina, (pamphlet).....	Aug. 21	Do.
Continued rise in cereal prices.....	Aug. 25	Do.
An all Argentine merchant vessel.....	Aug. 26	Do.
BOLIVIA.		
Motion pictures in Bolivia.....	June 12	Ross Hazeltine, consul at La Paz.
Value of advertising in Bolivia.....	June 20	Do.
Market for cleaners' and dyers' machinery.....	Aug. 2	Do.
Market for American made gloves.....	Aug. 19	Do.
Market for preserves, jams and jellies.....	Aug. 22	Do.
BRAZIL.		
Market for confectionery.....	Aug. 22	Ross Hazeltine, consul at La Paz.
Prices of foodstuffs in Federal Districts.....	June 19	Augustus I. Hasskarl, vice consul at Rio de Janeiro.
Immigration into Brazil, Jan. and April, 1919.....	June 27	Do.
Brazilian consular invoice regulations.....	June 30	Do.
Celebration of the centenary of Brazilian Independence.....	July 1	Edward Higgins, consul at Bahia.
Paving improvements at Bahia.....	July 16	Do.
Deepening of River Grande.....	July 19	Do.
State of Bahia to aid education.....	July 22	Do.
New Bahian export tax.....	July 23	Do.
Agricultural experiment stations at Bahia.....	Do.	Do.
Market for naval stores at Bahia.....	July 24	Do.
Extension of Brazilian railroad.....	July 25	Do.
Roadbuilding in Brazil.....	July 29	Do.
Canal construction in State of Bahia.....	July 31	Do.
Reorganization of Brazilian steamship lines.....	Aug. 1	Do.
The Commercial Association of Bahia.....	Aug. 2	Do.
Roadbuilding in the State of Bahia.....	Aug. 4	Do.
Translation of Bahia good roads law, act No. 1227 of Aug. 31, 1917.....	Do.	Do.
Bag factory for Bahia.....	Aug. 5	Do.
Agricultural school for Bahia.....	Aug. 11	Do.
CHILE.		
Trip from Antofagasta to Buenos Aires via Bolivia.....	July 15	Arnold A. McKay, consul at Antofagasta.
Opportunities for sale of fruit trees and other nursery stock.....	July 16	Thomas W. Voetter, consul at Valparaiso.
Market for jams, jellies, and preserves.....	July 17	Arnold A. McKay.
Information in regard to the establishing of a condensed milk factory in Valdivia.....	Aug. 4	Thomas W. Voetter.
Market for cotton bags in Chile.....	Aug. 31	Carl F. Deichman, consul in charge at Valparaiso.
Market for bicycles in district.....	do.....	Do.

Reports received to October 15, 1919—Continued.

Subject.	Date.	Author.
COLOMBIA.		
Market for American made gloves.....	1919, July 19	S. J. Fletcher, vice consul at Cartagena.
Market for certain classes of confectionery.....	July 24	Do.
Use of motor vehicles in the Cartagena consular district.....	Aug. 26	Do.
Imports and exports for July, 1919.....	Aug. 31	Do.
COSTA RICA.		
Government monopoly of matches and cigarette paper.....	July 31	Benjamin F. Chase, consul at San Jose.
Concession for the manufacture of buttons from mother of pearl.	Aug. 7	Do.
Contract under match monopoly.....	Aug. 20	Do.
CUBA.		
Steamship liner service.....	Aug. 1	William Bardel, consul at Nueva Gerona.
Organization of British Chamber of Commerce in Habana.....	Aug. 6	H. W. Harris, consul general at Habana.
Annual report on commerce and industries of district.....	Aug. 7	George A. Makinson, consul at Cardenas.
Grapefruit crop of 1919, on Isle of Pines.....	Aug. 31	William Bardel.
Use of motor vehicles in Matanzas Province.....	Sept. 15	R. C. Beer, vice consul at Matanzas.
Use of motor vehicles in Cienfuegos.....	do.....	Frank Bohr, consul at Cienfuegos.
Cienfuegos yacht club.....	Sept. 16	Do.
DOMINICAN REPUBLIC.		
Commercial conditions in northern Dominican Republic.....	June 18	George A. Makinson, vice consul at Santo Domingo.
Restricted use of motor trucks in Santo Domingo.....	June 25	Do.
Executive order fixes legal rate of interest in Dominican Republic.	July 15	Do.
The use of motor vehicles in Santo Domingo City.....	Aug. 11	W. A. Bickers, consul at Santo Domingo.
Market for ready-to-wear shirts.....	Aug. 25	George A. Makinson.
Agricultural progress in Dominican Republic.....	Sept. 10	Do.
ECUADOR.		
Primary schools in Ecuador.....	July 31	Frederic W. Goding, consul general at Guayaquil.
Market for American made gloves.....	do.....	Do.
Market for confectionery in Ecuador.....	Aug. 2	Do.
Commerce and industries for July.....	Aug. 14	Do.
Use of motor vehicles in Ecuador.....	Aug. 20	Do.
MEXICO.		
The Yaqui River cottonwood.....	July 21	Bartley F. Yost, consul at Guaymas.
Metal production.....	July 29	Charles H. Cunningham, consul general, Mexico City.
Steamship liner service.....	July 31	Bartley F. Yost.
Market in Mexico for knit goods.....	Aug. 8	J. B. Stewart, consul at Chihuahua.
Sale of important smelting plant.....	Aug. 19	Thomas Dickinson, vice consul at Monterey.
New office building and new department store.....	Aug. 23	Do.
Good corn crop in States of Nuevo León and Tamaulipas.....	Aug. 26	Do.
Production of candleilla wax.....	do.....	Do.
The electrical supply market of Tampico.....	Sept. 15	Claude I. Dawson, consul at Tampico.
Market for American-made gloves.....	Sept. 19	Cornelius Ferris, jr., consul at San Luis Potosi.
Kaolin or porcelain clay found in State of Chihuahua.....	do.....	J. B. Stewart.
Motion-picture market.....	Sept. 18	Francis J. Dyer, consul at Nogales.
PANAMA.		
The use of motor vehicles in Colon.....	Aug. 8	Julius D. Dreher, consul at Colon.
New steamer line to Colon-Cristobal.....	Sept. 12	Do.
PARAGUAY.		
Nationality of shipping and tonnage at port of Asuncion first three months of 1919.....	June 25	Henry H. Balch, consul at Asuncion.
Declared exports to United States for six months of 1919.....	July 8	Do.
Paraguay as a market for American coal.....	July 10	Do.

Reports received to October 15, 1919—Continued.

Subject.	Date.	Author.
PERU.		
Cold-storage plant for Lima.....	1919. June 17	William W. Handley, consul at Callao-Lima. Do.
Market for American-made gloves.....	Aug. 26	
URUGUAY.		
Official valuations for collection of export duties.....	July 7	William Dawson, jr., consul at Montevideo. Do. Do.
Market for inks, pencils, and pens.....	July 9	
Market for tacks, staples, and nails.....	do.	
VENEZUELA.		
Increase in landing and lading charges at La Guaira.....	July 19	Homer Brett, consul at La Guaira. Do. Do. Do. George R. Phelan, vice consul at Puerto Cabello.
Steamer liner service.....	Aug. 14	
Use of motor vehicles.....	Aug. 15	
Shipping notes.....	Sept. 12	
Steamship service.....	Aug. 23	

BOOK NOTES

*[Continued from the October number of the Bulletin.]***CHILE.**

La verdad sobre la salida de Iquique del ex-Consul Llosa. Piezas del sumario levantado para establecer las circunstancias del embarque y salida de Iquique del ex-consul del Perú Don Santiago Llosa Arguelles. Iquique, Imprenta de "El Tarapaca," 1918. 78 p. 8°.

COLOMBIA.

- Colombia. (Hacia la revolución social.) [Por] J. A. Tamayo. [Panama], International Publishing Co. [1916]. front. port. 112 p. 8°.
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- Memoria del Ministro de Obras Públicas al Congreso de 1919. Bogotá, Casa Editorial de Arboleda & Valencia, 1919. fold. table. 227 p. 8°.
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CUBA.

- El abono verde y la rotación moderna de los cultivos. Por el Dr. Mario Calvino. Habana, Imp. "Militar," 1919. illus. 55 p. 8°.
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Guía-directorio de la república de Cuba. (Bailly-Baillièrre-Riera.) Comercio, industria, agricultura, ganadería, minería, propiedad, profesiones y elemento oficial. Barcelona. "Anuarios Bailly-Baillièrre-Riera Reunidos," Sociedad Anónima, 1919, map. 839 p. 4°.

Homenaje al señor Carlos M. Trelles y Govin, socio de honor. Asociación de la Prensa Médica de Cuba. Matanzas, Imprenta de Juan F. Oliver, 1919. 90 p. 8°.

Inmigración y movimiento de pasajeros en el año 1918. Habana, Imprenta y Papejería "La Propagandista," 1919. fold. table. 23 p. 4°. (Publicación de la Secretaría de Hacienda, Sección de Estadística.)

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HONDURAS.

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PANAMA.

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PARAGUAY.

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PERU.

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- Twenty-fourth annual report of the American Scenic and Historic Preservation Society, 1919. To the Legislature of the State of New York. Albany, J. B. Lyon Co., Printers, 1919. pls. 458 p. 8°.
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MAPS.

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VENEZUELA.

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VENEZUELA.

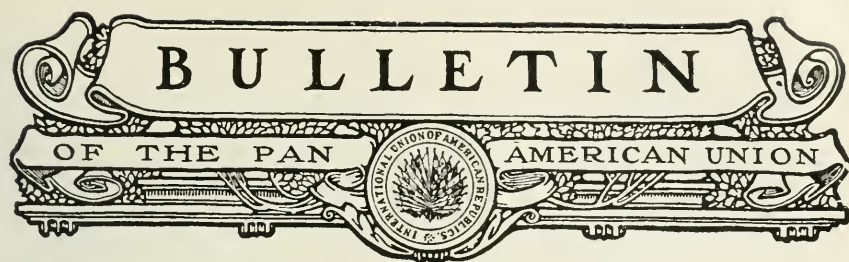
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Courtesy of National Geographical Society, Washington, D. C.

ON TROPICAL SEAS.



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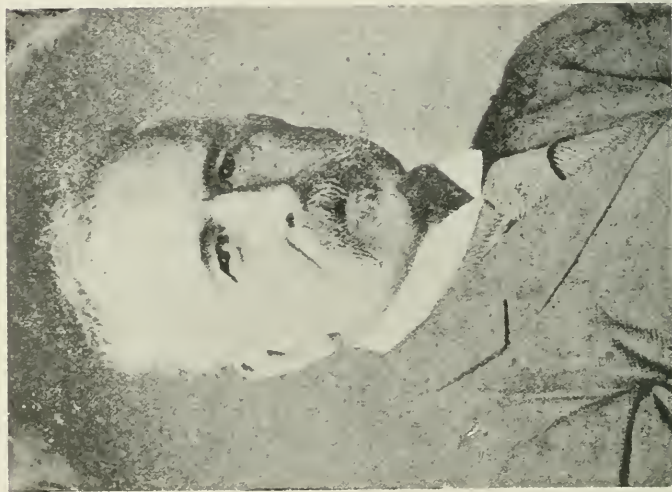
PAINTING IN VENEZUELA¹

I.

AMONG the effects of the Conquistador there came to Venezuela the first pictures which showed any glimmering of art. The Indians of the mainland, if they dimly recognized it in its simple and rudimentary forms, progressed no further in their artistic designs than the daubing of war paint upon their beardless faces; the sketching on stone of the rude silhouette of familiar animals; the adorning of a headdress with feathers, taken from the varicolored birds of the native forest; and winding on their horns the wailing lament of the unfortunate, or the summoning war blast of battle. The Spanish adventurer who journeyed to the Indies, led on by the vision of marvelous lands of El Dorado, brought neither the temperament nor the esthetic inclinations for art; and thus centuries passed over the obscure colony. The first pictures came to the captain general, brought by devotees to adorn the Catholic churches; and perchance some quaint friar whiled away the leisure hours in the cloister, transferring to canvas the image of the Virgin Mary or the smiling beauty of the child Jesus. But these works, the fruit of uncultivated tastes, never merited nor acquired fame. Spain sent to the churches of her colonies altarpieces which were not always of the best, in spite of the opulence and splendor of the Spanish school of the period.

Moreover the colonial system was not conducive to love of the fine arts, much less to their cultivation. It was necessary for liberty to triumph, and the Republic to be formally established before artistic tendencies could really be noted in Venezuela. First, these tendencies drowsed in that long period of tropical siesta in which the colony remained; nor was there opportunity later for them to

¹ English version of the article prepared in Spanish by Dr. J. Semprum.



TREE GREAT VENEZUELAN PAINTERS.

Left to right: Antonio Herrera Toro, Martín Tovar y Tovar, and Arturo Michelena.



THE SIGNING OF THE ACT OF INDEPENDENCE OF VENEZUELA.

Picture by Martín Tovar y Tovar, in municipal council chamber of Caracas.

develop during the extended bloody era of the war of emancipation, when all the energies of the people were given to the defense or the destruction of the royalist government.

The study of the origin of Venezuelan painting is perhaps an odd, dry subject not to be covered in a simple sketch. Tradition and history preserve certain names, more deserving of honor for their generous efforts than for the value of their achievements. While the literary arts attained prominence and brilliance in the first years of the Republic, to decline suddenly and then recover their splendor at the end of the century, the art of painting began to flourish only at the end of the past century.

The first name we come across at the beginning of the nineteenth century is that of Pedro Lovera, artist by profession, who accomplished the miracle of painting very passable pictures without ever having had masters. Some such deeds have been performed in Venezuela, and this gives proof at least of the tenacity of our people, esteemed by the world as frivolous and incapable of perseverance. Can one conjecture, then, what the good Lovera must have done under such conditions, without schools or models other than the altarpieces of the churches and the face of nature? If he had painted only, his name would probably have been forgotten, as are those of the generation of his time who marveled at his rare gifts. But he did something better and more lasting than his canvasses. He founded a school of drawing and painting in Caracas, and turned out pupils who had profited by the opportunity. That school may be called the first seed of Venezuelan art. Pupils were not lacking; and though Lovera did not succeed in implanting in any of them that fearlessness characteristic of the vocation, nor in creating in them talents with which they had not been endowed, he had at least the glory and the fortune of serving his art by awakening a love for beauty of form, color, and light in young and ardent souls. Chronicles of the period speak of one Celestino Martínez, and a son of Lovera named after the master, as the two most accomplished of the school.

Years afterwards the Sociedad de los Amigos de la Republica founded in Caracas a school of drawing and painting directed by Joaquín Sosa, later succeeded by Antonio José Carranza, a painter of some merit who possessed the technique of his art. It was Carranza who, during his directorship, initiated the teaching of painting in oils. The school was held in the old convent of San Francisco and was well attended, though it left no great traces of its efficacy. The same Carranza was appointed professor of drawing and painting when the Institute of Fine Arts was founded in Caracas.

Ramón de la Plaza, in his review of fine arts in Venezuela, mentions Manuel Cruz, who studied in Madrid and Rome and painted



THE BATTLE OF CARABOBO.

Section of the large picture by Tovar y Tovar, in which the artist recalled the most notable events in the battle of Carabobo, which put an end to Spanish rule in Venezuela. The picture, of which this is a section, is the mural decoration of the cusillo of the Federal Palace of Caracas. The section shown here represents the attack made by the Venezuela cavalry under Paez, whose figure appears in the foreground of the canvas.

many canvases. One, in particular, "The Fountain of Pope Julius," is mentioned very favorably by the same critic. From Europe Cruz returned to Caracas, but seemed to have abandoned painting without regrets to devote himself finally to tilling the soil.

Perhaps he discovered too late his lack of real talent; perhaps, thwarted by the conditions of his environment, little conducive in those times to the pursuit of the fine arts, he renounced his palette and brushes, preferring to take refuge in the cordial and obliterating bosom of tropical nature.

Carmelo Fernández, nephew of Gen. José Antonio Páez, came to Caracas in 1822, when still a child. He showed marked talent for drawing and was sent while very young to New York, returning in 1827 to take up the studies demanded by the career of military engineer. It is this Carmelo Fernández to whom we owe the pictures that appeared in the first edition of the *Historia de Venezuela* by Rafael María Baralt. For this purpose Fernández went to France, where he completed his art studies. On his return to Venezuela he devoted himself to the teaching of drawing and painting, and it may be said that his academy was the beginning of Venezuelan painting. One of his pupils was Martín Tovar y Tovar, whom the master inspired with the creative spirit and stimulated to persevere in the art. It was no easy task, neither pleasing nor productive of delightful ease in those times to choose the profession of artist. The society of the period was not so organized as to even appreciate the worth of the love and cult of beauty, and consecration to activity of such a kind seemed more like the idleness of a boy lacking entertainment than a high calling. But Tovar, aside from the talisman of his vocation, possessed certain qualities which smoothed the road for him, permitting him to become without mishap a master, revered by all and feeling the justifiable pride of seeing a generation of pupils forming that fell heir to his enthusiasm and talent. Tovar went to Europe and studied seriously in France with Coignet; in Spain with Madrazo. His personality as a painter is not extraordinary, but it is noteworthy; and in Venezuela he was the first sincere, talented, and genuine painter we ever possessed.

The Venezuelan critic, Ramón de la Plaza, says, when referring to Tovar:

Tovar has been able to fuse the differing characteristics of the schools in which he studied. His coloring, without being strong, is brilliant, natural, and soft. His compositions are harmonious; his drawing firm and correct; and the likeness to his models perfect. The difficult blending of the flesh tones, very marked in our brunettes, without muddying the coloring, is delightful and of admirable transparency.

Tovar was the painter of the celebrated mural decorations which adorn the ceiling of the elliptical salon of the Capitol in Caracas, which show the handling of a strong idea with certitude. The vision



THE BATTLE OF CARABOBO.

This section shows Bolívar, on one of the heights above the battlefield, giving orders to his general staff.

of the great war appeared to his eyes not with the crudeness and ferocity of the first years when the hordes of plainsmen, with Boves or Páez at the head, passed over the prairies like a whirlwind of thunder and anger, bristling with lances; furious centaurs with brawny chests, pale faces, and eyes of flame; spent horses which seem animated only by the frenzied spirit of the riders; and back of this horrifying vision, razed towns, smoking ruins, carrion devoured by the vultures, and deserted lands. It was the "roza," or clearing of the ground previous to the foundation of the Republic. As the pioneer, reaching the edge of the virgin forest and knowing that the axe will tire his arm before he can open a breach in the tropical jungle, calls upon fire and commits the task to its voracity, so worked the exterminating bands during the tragic years of the Republic. The painter has yet to come who will fix upon canvas the hard, cruel faces of the heroes, lighted by the red splendor of the fires that surround them. Tovar interpreted the epic of the war after things were regulated, after the repeal of the decree of Trujillo. Thus, his fighters appear-riding-spirited chargers, dressed in splendid uniforms, gathered in meetings of the general staff and showing only the glamour of war: a softening of the historical facts of the shock of battle and carnage, whose devastation he did not attempt to depict by art. But even in these scenes persists a certain composition suited to the style and methods of the painter. The panoply of war, the splendor and the dramatic movement of these pictures by Tovar are unique in Venezuelan art.

Tovar also painted the popular "Signing of the Act of Independence." It is a fine picture, full of solemnity and glory, in which each of the historical personages appearing therein represents an excellent example of historical and psychological reproduction, since the artist excelled himself and succeeded in great part in giving to each face and each attitude a subtle harmony which expressed the character of each personage as he lived in the imagination of the Venezuelans.

Contemporaneously with Tovar appears his pupil, Herrera Toro, who achieved fame as a painter of religious subjects, leaving some notable works.

After having taken up elementary studies in Caracas under the tutelage of Tovar, Herrera went to live in Paris and later in Italy. Having completed his studies he returned to Venezuela in 1879. The Archbishop of Caracas then ordered from him the pictures which adorn the walls of the chancel of the Metropolitan Church, which are: "The Assumption," "Faith," "Hope," and "Charity." Fortunately this type of subject was in harmony with the nature of the artist who did not have to stifle his impulses nor constrain his spirit to fulfill his commission. These pictures show a warm faith, and



THE BATTLE OF CARABOBO.

The subject of this section of the picture by Tovar y Tovar represents the retreat of the veteran Spanish battalion "Valancy," against which, though cut off from their commands, the Venezuelan Generals Plaza and Ceballos hurled themselves. In the center of the section may be seen the figures of the two heroes as they fell to earth with the horses they rode.

appeal to the virtues and sanctity which the Catholics venerate. *The Immaculate Conception*, and the *Baptism of the Savior*, in the church of Altagracia, in Caracas, are also among the best known of his works.

Herrera Torro during the latter years of his life directed the School of Fine Arts of Caracas, where his work was of far-reaching importance to the young artists, who found in him a true master, affable, loyally interested in discovering and encouraging talent, and who with fine unselfishness lent to his pupils the aid of long experience and technical knowledge, helping them to solve the delightful but difficult problems of painting.

With Herrera Torro should be mentioned an eminent artist whom adverse fortune confined to an invalid's chair for many years. Carlos Rivero Sanaveria, in spite of being an invalid, succeeded in equipping himself as one of the cleverest and most prolific artists of his time. He studied in Europe and gave promise of being a master when sudden misfortune condemned him to partial paralysis. A spirit more mild than his, a spirit less irrevocably enamored of beauty, would have renounced—perhaps with intense bitterness, but still renounced—the use of the palette and brushes. He did not. In his paralytic's chair, making use of ingenious and complicated contrivances which proved his heroic will power, he went on painting, transferring to canvas those marvelous visions of life which took shape in his soul; and this without any traces on the canvas of sarcasm, sadness, nor of anger. The radiant visions of his imagination softly erased from his mind the shadows incident to his condition and were a consolation to the sad monotony of his hours. Neither need it be thought that his pictures merit praise solely as the work of a man physically crippled, for they are really esteemed for their intrinsic value. His portraits of the statesmen are fine in their severity, power, and nobility of execution.

In those faces, alight with glory, we see the fairest dreams of the new-born nation, and no one ignorant of the sad history of the poor artist who passed the better part of his life in an invalid's chair, would imagine that these pictures, in which there is so much vitality, were painted by means of a thousand little artifices contrived to aid the handling of his brushes.

II.

Arturo Michelena was the first of our painters to obtain fame outside of Latin America; he was the first to be praised by the great masters and great critics. He was an artist of keen perception, deeply enamored of his art, who was cut down by death in the brightest period of life and at the height of his glory. It was a misfortune for Venezuela that the two greatest painters, Rojas and Michelena,



LA CARIDAD.

A picture by Arturo Michelena in the National Museum of Caracas.

both died young, victims of the same malady. The two studied together in Paris and professed undying friendship; but neither influenced the other, and it would be hard to find two individuals, natives of the same land, living in the same time, and devoted to the same art, who were so radically different. While Michelena might, from his work, pass for a native of Spain, France, or England, Rojas was purely Venezuelan in the peculiarly violent and bitter themes which predominated in his work and gave it a distinct style.

Michelena had an easy and brilliant career. Notwithstanding that conditions were unfavorable, as a rule, he never encountered serious obstacles to his studies or profession; everything went according to his desires. He obtained just recognition in the salons of Paris, and Venezuela felt proud of her splendid son. Then, just when he promised to excel himself, he fell fatally ill. He was a native of Valencia, and showed talent from a child in drawings and sketches that earned him the patronage of Gen. Guzmán Blanco. His career was assured from that time. He was sent to Paris, where he succeeded in fulfilling the most flattering prophecies in regard to his work. He early acquired a perfect control of technique, and the gifts of the natural artist were then revealed in all their fullness. In Paris he won the second medal—a prize never before nor since awarded to a painter from these tropical lands. In spite of his triumphs, in spite of the advantages he would have had in France, he wished to return to his native land, and he did return to it, there to be stricken with the terrible and incurable malady which shortly caused his death.

The death of Michelena and of Rojas at so early an age, when they could have been most useful to the national development of art and culture, was a national misfortune. Had they grown old among us pursuing their art they would in turn have formed a national school or style, which unfortunately Venezuela lacks. Our art is developing spasmodically; each powerful personality lends it a sudden brilliance, which dies out with the death of the master. The light of the torch is put out all too often, and darkness or a pale half light covers again the realm of art. For this reason perhaps all the greater praise is due to those who succeed in bringing out of unfavorable conditions a new gleam of beauty. The two great artists were gone, but young students found fit and worthy teachers; still the example and association with the two great painters would unquestionably have been a great advantage to the young men.

Michelena was an exact artist, given to detail, happy in his drawing and with a true sense of color, not given to innovations. His masterpiece—or so it is considered by the Venezuelans—"Pentesilea," is a fine example of his genius and the cleverness of his methods. The episode which Michelena has perpetuated on this wonderful canvas belongs to the age of Greek fables. The subject is not an easy one, but picturesque and capable of a fine interpretation of form.



PENTESILEA.

One of the best known works of the well-known Venezuelan painter, Michelena.

Michelena succeeded in obtaining from the ancient legend, scented with old perfumes, a picture full of heroic grace and stirring beauty. The Amazons are rushing, swift and furious, to battle, mounted on wild colts, in whose muscles one divines the purpose of trampling the enemy and to race along the road to victory. The warlike violence does not blennish the grace, beauty, and appeal of the feminine forms, which shine in the midst of the tumult of battle with the rose and white hues of virgin flesh. The light floods the picture in dazzling brightness which harmonizes marvelously with the furious and rapid tumult, the pink and white of the heroic Amazons. One feels an irresistible breath of force from the picture like a mad chant of ebullient life and of death too—death beautified by that serenity which pagan myth sheds over it like a golden haze hung over the bitter foam of the Acheron. The riders, swift and agile, daring as men, are painted with a naturalness not to be surpassed, and thrill with the untamed life that the artist has succeeded in giving them.

The heroines bring to life the glorious fable of irresistible beauty and indomitable fierceness, and we seem to hear, over the heights of the fortress of Troy, the war cries of the barbarous virgins, bringing a vague echo of the *evohé* with which Dionysius incited the sacred fury of his priestesses. The atmosphere of "Penteselea" exhales the odors of sweating horses and feminine bodies glowing with the fury of the savage attack; and the air is flooded with trembling haze, in whose golden transparency appears the silhouette of the city of Priam, predestined to destruction from the fall of Hector, now about to bring into the walls the Trojan horse. How the spirit of the artist came to create this ancient vision it is impossible to know. The writers contemporaneous to Michelena do not state, nor shall we ever know what classic gave him the idea of evoking for modern eyes this swift luminous vision of the Amazon, whom Achilles, he of the winged feet, had to sacrifice in sight of those walls which witnessed that ancient duel between the invading and mysterious east and the west in which were clarified the forces and the dreams of the human race. This picture of Michelena appears in connection with his other work like a confusing bolt of light hurled by the beauty of the past which, even riding to its death, seeks the most noble and harmonious posture for the fall. Michelena did not continue the type of work in which he achieved such a definite triumph with Penteselea. He left fabled antiquity and lived among his contemporaries, interpreting their illusions, their disappointments, and their dreams.

But he did not penetrate their souls with the probing insight of Cristóbal Rojas, his glorious companion. Michelena delineated forms without giving the essences; he expressed faithfully what his



THE MIRACLE OF THE LOAVES AND FISHES.

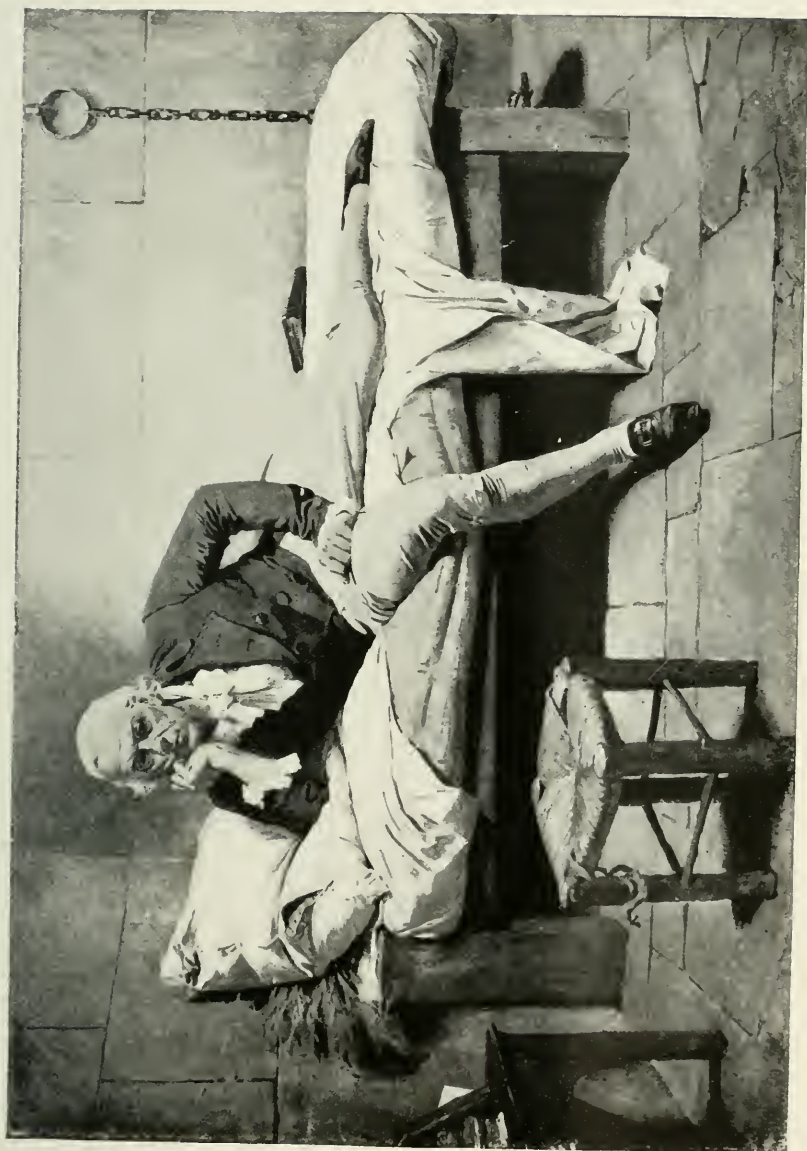
A picture by Arturo Michelena in the Santa Capilla of Caracas.

eyes saw in the world, ennobling it with that splendor which art gives images and forms. He was, from this point of view, a realist, while Rojas, with his nervous spiritualism, approached more nearly the subtle modern schools, who aspire not only to paint features and likenesses, but also to evoke states of mind and soul and to express ideas and complicated emotions in the eternal language of color and form.

"La Caridad," "El Granizo," and "La Vara Rota," represent the height of Michelena's effort as a painter of real life. The conception of "La Caridad" is affected: its merit is exclusively that of execution. Those who wish to compare the styles of our two great painters have but to note carefully "La Caridad" by Michelena and "Miseria" by Rojas. In the former appear, amidst somber ruins, misery relieved, the type of picture that the rich like to see in engravings, canvasses, and books, for it is an allegation in favor or defense of wealth. It is that crushing misery under the rags of a wretched bed, there to receive alms from charitable hands which relieves the consciences of the rich. Into the doleful scene of misery comes charity luxuriously dressed. This accepted and extolled conventionalism impresses simple minds and quiets apprehension. The uncritical spirit of Michelena, inclined at times to weakness and misled by the commonplace and trivial which the majority sanction with applause, allowed himself to be carried away by the light sentimentalism in vogue. "La Miseria," by Rojas, on the other hand, has neither remedy nor hope; it is real misery, whose presence evokes chills of agony and anguish of the soul to the point of remorse. And it is because Michelena was almost always an objective painter loving a world which he ingenuously believed foreign to his own being; while Rojas had the intuition to see the world merely as his own individual problems, clothed in visible and harmonious forms.

For the foregoing reason Michelena was a much praised and much sought portrait painter. Rojas, with his unconquerable love of analysis would have failed in a portrait revealing to the disconcerted and infuriated models those marks, hidden from the eyes of the crowd, that revealed the character of the sitter, or the idea formed of the subject by the painter. It would have been as perilous to have portraits by Rojas as biographies by Juan Vicente González. Michelena had the grace, the feeling for conventions, and the polished art of pleasing which characterize the portrait painters of all periods.

His historic pictures are of unquestionable artistic merit. Reproductions have made his "Miranda en la Carraca" familiar, and the picture is fixed in all minds as the faithful likeness of the great captive. The shackled generalissimo has a certain noble and remote air well suited to the mental picture we have formed of the Precursor. For the future generations of Venezuelans Miranda will never appear except with that severe serenity painted by Tovar y Tovar in the



MIRANDA IN PRISON.

This picture, by Michelena represents Miranda in the prison of Carraca, where he ended his days, which had been spent in striving for the emancipation of the old Spanish colonies of South America.

Signing of the act of independence, or in the sorrowful cell in which he spent his last years and died. The conspirator of London, the Girondist general, the expeditionist without fortune, the generalissimo of the First Republic, will remain without concrete reminder to perpetuate them unless some great artist appears to bring them from obscurity for all time.

Perhaps the greatest historical work of Michelena, the one with most vivacity and real art, is "Charlotte Corday," a picture which reveals long and earnest preparation and in which appears a series of achievements of the first order. There is no affectation in the expressions nor conventionalism, in the attitudes nor in the surroundings. The girlish figure of the victim of the fanaticism of the friend of the Republic radiates gentle firmness and candor, while the representatives of the terror seem indifferent to the condemned girl, as they must have been in those times of violence, when life lost the definite value attached to it in times of peace.

As a mystic painter Michelena showed the same qualities as in the rest of his work. At this time it is difficult to determine whether he was a believer or no. But from his work one would assume that he had faith. At least in the care with which some of his mystic pictures are executed it seems logical to discern something more than the mere complacency of the artist in love with his work, a sort of certainty and gratification which faith alone inspires.

His principal religious pictures are "La Agonía del Huerto," "La Multiplicación de los Panes," "El Descendimiento," and "La Última Cena," all of which are in the churches of Caracas. The "Cena" was never finished; the artist was forced to leave his task, a victim of tuberculosis, which caused his death. This last picture impresses one the more because it is a proof of the struggle the artist made against death in his desire to finish the canvas. The illness of the painter was one which permitted him to conserve the clearness of his mind and even refine it with new and subtle powers of delicate perception. Perhaps from his nearness to the eternal shadow he brought that superhuman beauty with which the head of the Master shines among the twelve apostles, on the night on which were prophesied the passion and blasphemies of the sacrifice. Judas Iscariot shows his face already dark with the secret dread design. The face of the wicked disciple has been much praised, and is in fact a lugubrious and repellent symbol in the midst of the solemn and sweet communion of the Supper.

Michelena represents, in fact, the correct, measured, and tranquil art according to the canons, and is the revealer of soothing and delicate beauties. He represented in Venezuela a spirit which to the present few have been able to imitate, and which proves that he had some of the virtues that the national character lacks—perseverance, discipline, and system in the cultivation of one's gifts. He was a



THE LAST SUPPER.

Although unfinished, this last picture of Michelena shows all the best qualities of the artist. The faces of the Redeemer and of Judas are alone sufficient to compensate for the incompleteness of the picture, due to the artist's death.

persistent and patient worker, supplementing by virtue of study and practice those qualities with which nature had less bountifully endowed him, thus obtaining the range of power necessary to make him what he was, an artist of the first rank. He was not a romanticist because he did not feel the rapture of sudden inspirations, nor did he venture to try anything without previous and mature consideration. For our young painters, bitten by the tarantula of impatience, who attempt to begin by painting historic pictures, his lessons would have been of inestimable benefit. He would have taught them moderation, tenacity, less egoism, and more veneration for art itself, which ought not to be a lightly considered occupation but a life work, not to be chosen as a career without first having carefully considered ones gifts and qualities, and feeling a proper reverence for the high calling.

(Concluded in the January number.)

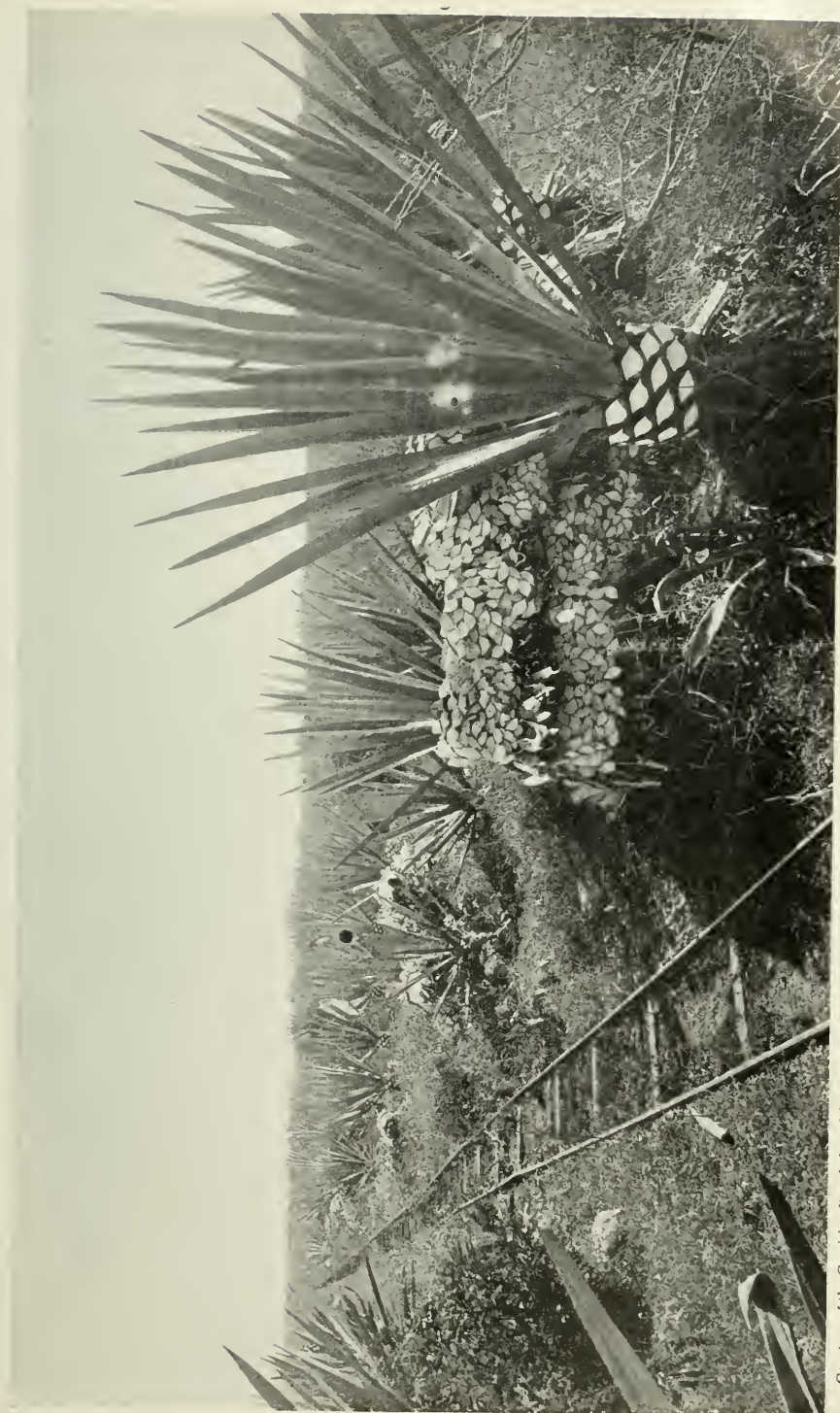
THE HENEQUEN INDUSTRY OF YUCATAN¹

THE SOURCE OF THE WORLD'S BINDER TWINE SUPPLY.

MOST people probably remember that as school children in the study of geography they learned the location of the Peninsula of Yucatan, which concept they more or less vaguely retain. If the reader, barring the few who, for educational, scientific, or commercial reasons, have directed special attention to this region, were asked as of yore to bound this peninsula, describe in brief its political status and connections, and name its chief imports and exports, it is entirely possible that he might fail to qualify for the intermediate geography class from which he once so proudly graduated. This is due perhaps not so much to indifference and forgetfulness on the part of the reader as to the fact that the Yucatecans have been content, modestly and quietly, to develop a great state and industry, under somewhat adverse conditions, without heralding their accomplishment to the world by means of a systematic propaganda.

When it is realized that Yucatan, the interesting, important, and picturesque Mexican State lies but a short distance from New York and New Orleans, and that it produces 80 per cent of the world's supply of binder twine fiber, upon which the food supply has been

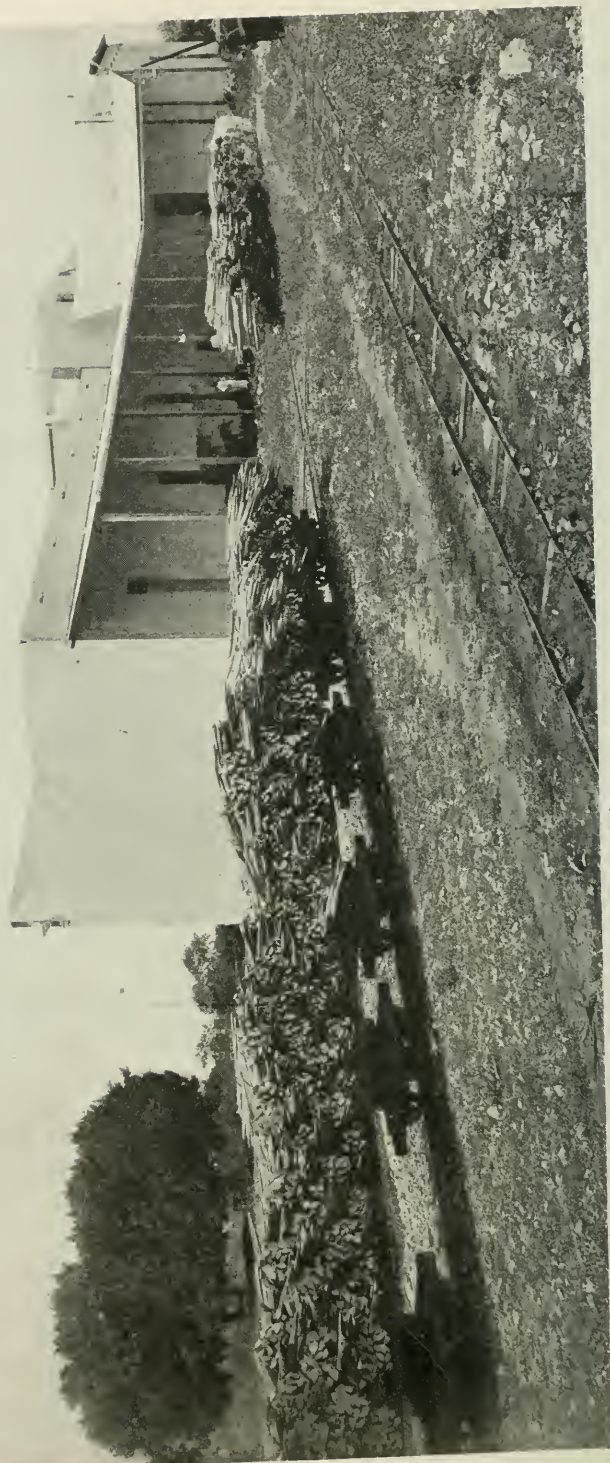
¹ By O. Gaylord Marsh.



Courtesy of the Comisión Reguladora del Mercado de Henequen, Merida and New York.

THE HENEQUEN HARVEST.

A field of sisal, or henequen, in process of being cut on the plantation of Don Felipe G. Canton, of Merida. The leaves are severed from the plants, the terminal and lateral spines removed, and the peuca corded to be hauled to the stripping machines. The central leaves are left as a nucleus for future cuttings.



Courtesy of the Comision Reguladora del Mercado de Henequen, Merida and New York.

A STRIPPING MILL AND HENEQUEN LEAVES.

A consignment of henequen pencas or leaves on the trancars at the mill ready for and awaiting stripping.



Courtesy of the Comision Reguladora del Mercado de Henequen, Merida and New York.

FEEDING THE STRIPPING MACHINE.

The feeding table of the decorticating or stripping machine. The leaves are brought to the table by chain elevators, where they are arranged side by side and fed into the machine.



Courtesy of the Comision Reguladora del Mercado de Henequen, Merida and New York.

NEWLY STRIPPED FIBER.

Henequen fiber emerging from the decorticating machine. At this stage the fiber is damp and greenish and is passed down a wooden bar to cars to be taken to the drying field.

so dependent, so much greater will be the excuse of the writer, an admirer of Yucatan, for desiring to describe briefly by word and illustration, for the information of the reading public, the great henequen industry, upon which nearly half a million people depend for a direct livelihood, and as a result of which millions of bread-eating people indirectly benefit.

The State of Yucatan constitutes the northeastern and most important portion of the Mexican Peninsula of Yucatan. It is 1,600 miles from New York and 500 miles from New Orleans; it comprises an area of 16,700 square miles; and has a population of about 350,000.

The only product and export of this State of any consequence in international trade is sisal fiber or henequen. The plant from which the fiber is obtained, agave *Foureroydes*, is indigenous in Yucatan, and was for long regarded as almost worthless and noxious, except that we are told that the ancient Mayas used it in making manuscripts similar to the papyrus of Egypt, until about the middle of the last century contemporaneous with the invention of the self-binder when, with abundant faith and persistent experimentation, a progressive Yucatecan succeeded in extracting and demonstrating the commercial utility of the fiber which was to become so important a factor in the world's grain harvests.

The soil of Yucatan is generally shallow, sparse, and rocky and the growth of weeds, shrubs, and other small hardy plants is rapid and persistent. The fields are prepared by being cleaned, at great cost of money and labor, of the wild growth, and of loose portable rocks which are used in building stone walls around the fields to prevent the henequen plants from being eaten, in the absence of something more tender, by stray horses and cattle. Once the grounds and inclosures are prepared the new plants or shoots, known locally as "hijos," or children, are placed in openings in the ground made by implements or by explosives. These plantings are cleared by the cutting out of wild growth with machettes at necessary intervals during the life of the henequen plants.

From the time the plants are 2 years old to the time they send up seed stalks, at the age of about 20 years, and just before the time of death, the fields, if well cared for, offer a fresh, beautiful sight in their rather dry, rocky, and barren surroundings, the leaves projecting symmetrically at graceful angles and presenting a delicate gray-green aspect. It may be remarked, however, that the plants, while beautiful to observe, are not pleasant to come into contact with, as the leaves are pointed and edged with strong, sharp, cruel spines.

At the age of about 7 years the plants are ready to produce. The leaves or pencas are cut during all months by laborers, who use for the purpose long, sharp knives. The lower leaves are taken, 25 to 30 of the central leaves being left as a nucleus for future cuttings.



Courtesy of the Comision Reguladora del Mercado de Henequen, Merida and New York.

EN ROUTE TO THE DRYING FIELD.

A load of fresh henequen fiber just out of the decorticating machine and on its way to be dried.



Courtesy of the Comision Reguladora del Mercado de Henequen, Merida and New York.

THE DRYING FIELD.

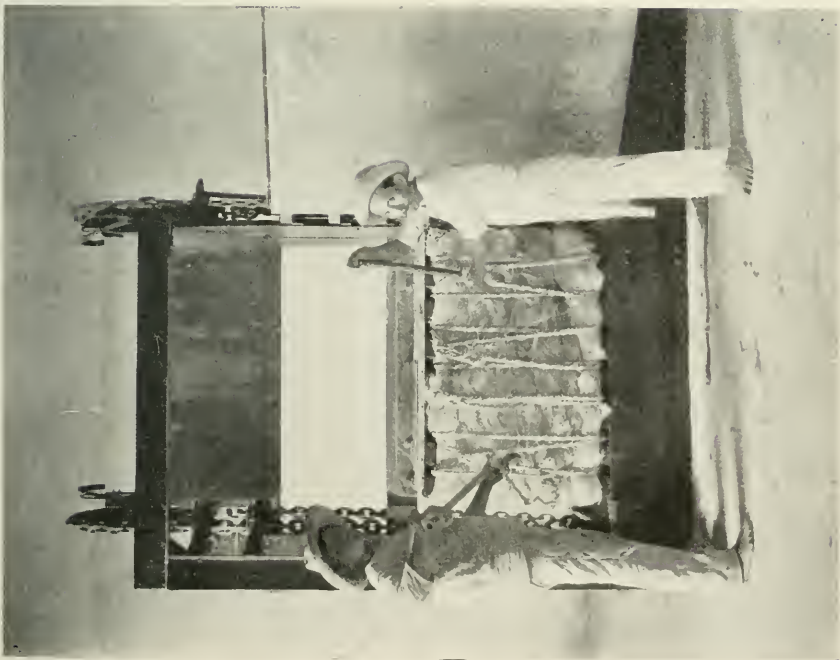
The henequen fiber is shown here spread on wires to be cured in the sun. This field when full of the fiber presents a clean, lacy, and inviting appearance.



Courtesy of the Comision Reguladora del Mercado de Henequen, Merida and New York.

A SISAL OR HENEQUEN PRESS.

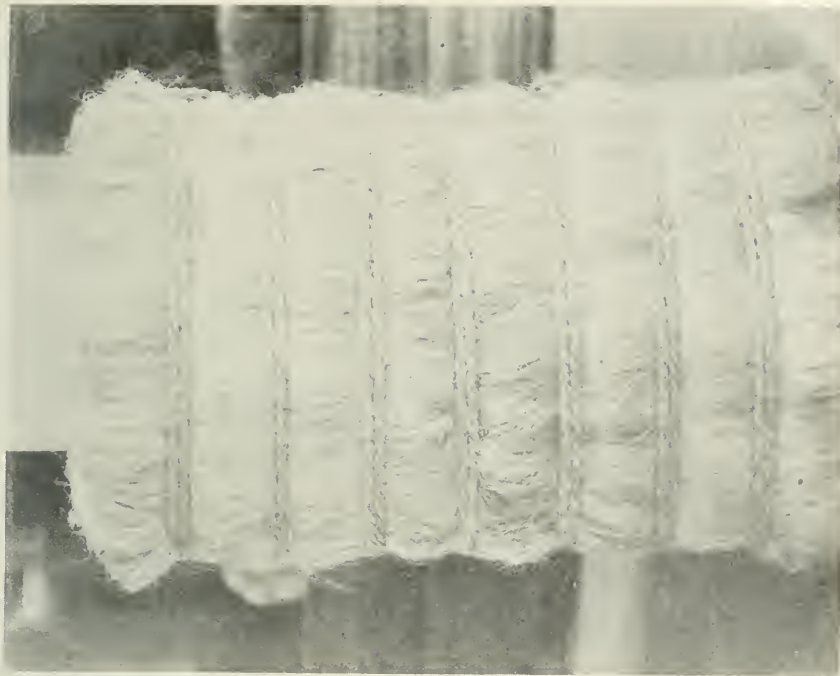
After being dried in the sun the henequen fiber is taken to the pressing room to be formed into bales by steam or hand power.



Courtesy of the Comision Reguladora del Mercado de Henequen, Merida and New York.

BINDING THE HENEQUEN BALES.

After the press is full of hequen fiber and the power applied, the sides are removed and handmade hequen ropes are passed around the bale and tied to hold it in compressed form.



Courtesy of the Comision Reguladora del Mercado de Henequen, Merida and New York.

A BALE OF HENEQUEN.

A sample of the highest grade Mexican henequen from the plantation of Don Felipe G. Canton. The bales weigh on an average about 350 pounds.

After the leaves are severed and the terminal and lateral spines removed they are tied in bundles of 25 each, to be loaded on mule-drawn tramcars and hauled to the stripping machines. The decortivating or stripping machines are a Yucatecan invention and are mostly manufactured in this State, though a few are manufactured in and imported from the United States. The machines are simple and effective, but not as efficient as they should be, as there is a considerable loss of fiber. The henequen leaves are taken from the tramcars and placed in an endless-chain elevator, which carries them to a feeding table, where they are arranged side by side and fed between two special sprocket chains, which run one above the other, grasping and carrying the leaves in front of three large rapidly revolving wheels, with scrapers which strip the pulp from the fiber. In order to remove the pulp retained by the bite of the first pair of chains, a second pair, slightly removed to one side, is provided to carry the fiber in front of the third wheel.

The fiber, which is damp and green upon emerging from the machine, passes down a wooden rod onto tramcars, which carry it to the drying field, where it is placed on wires to be exposed to the sun. The pulp from the leaves is placed in a dump or burned and the juice is drained away. These waste products in great quantities are awaiting industrial development into valuable by-products, such as paper, fertilizer, alcohol, chemicals, etc.

When properly dried the fiber is returned on cars to the pressing room, where it is formed into large, compact bales of 350 pounds each and then transported by tramway, railway, and steamship to the United States, to be manufactured into binder twine for the American and other harvests.

The annual exports of fiber from Yucatan, almost all of which, in an unmanufactured state, go to the United States through the ports of New York and New Orleans, amount to about 140,000 tons, valued at \$50,000,000.

Speaking by and large, henequen production in Yucatan constitutes a clean, happy, remunerative, and highly useful industry, with no detrimental by-products, and a consciousness of all this seems to be reflected in the character and disposition of the Yucatecans, a very large percentage of whom are occupied directly or indirectly in this important industry.



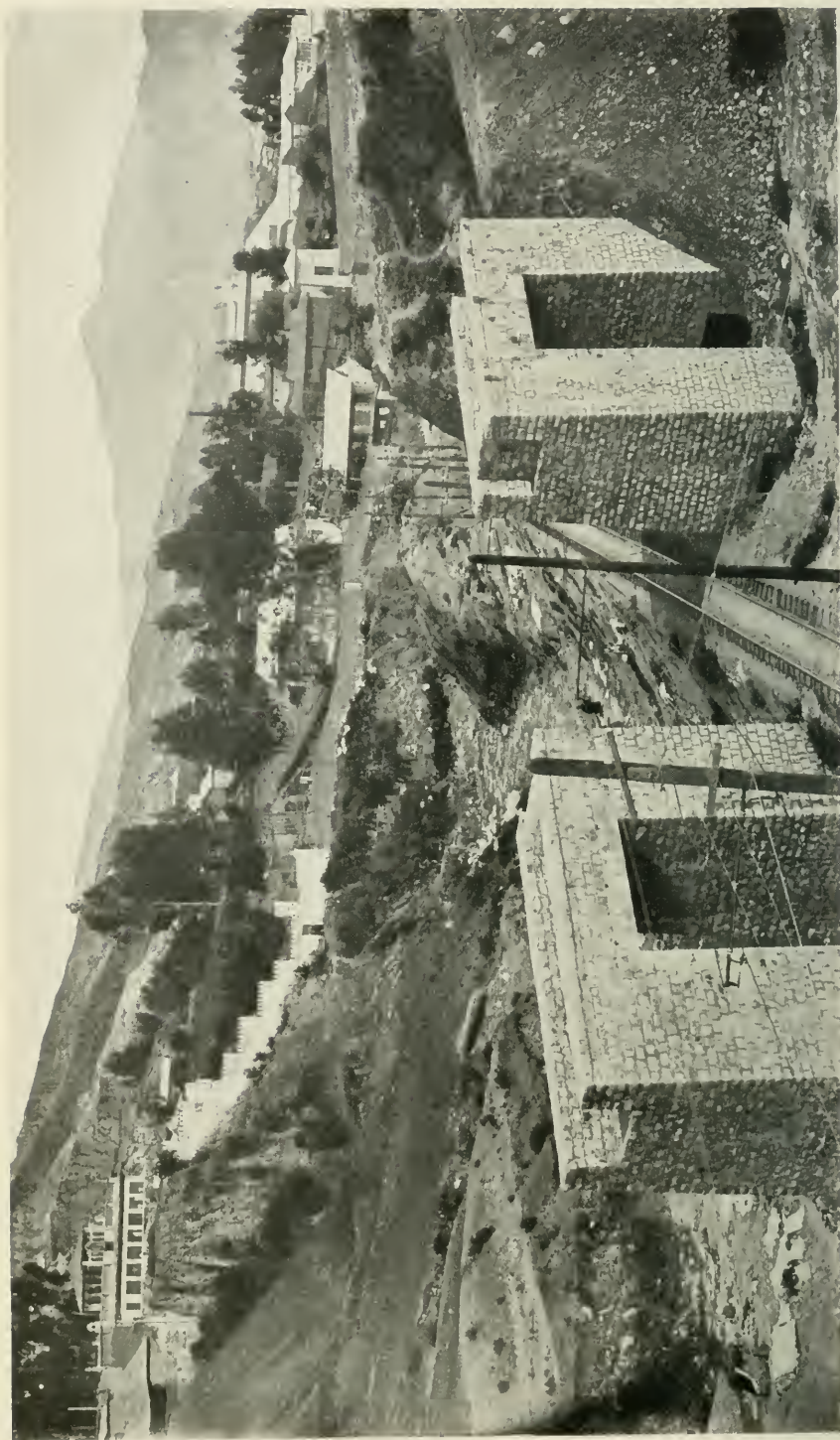
A NEW TRANS-ANDEAN RAILROAD¹

IN the Republic of Bolivia, situated in the very center of South America, all the railroads which have been constructed in recent years have the character of mountain lines, and all have presented in their construction important difficulties due to the exceptionally broken configuration of the country. But none of the railroads previously completed have the character of that now being constructed for the Government of Bolivia between the city of La Paz and the rich agricultural district of Yungas

This line, like all of the Bolivian lines, is meter gauge and is destined to connect the railways of the high tablelands with the warm valleys of the Yungas on the eastern slopes of the Andes—a region the name of which is known all over the world as the place whence comes the famous Yungas coffee. The principal difficulties which this line has to meet arise from the marked differences in elevation, in surmounting which it is necessary to cross narrow valleys that in many places have the character of imposing canyons, in which it is impossible to find sufficient room for the roadbed without constructing expensive works that would greatly increase the total cost of the undertaking. An idea may be had of these differences in elevation when it is known that the line on leaving the city of La Paz, the altitude of which is 3,600 meters (11,811.6 feet) above sea level, must ascend and pierce the principal ridge of the Andes passing through a gap the height of which is 4,640 meters (15,223.8 feet) above sea level. This difference in level is surmounted by means of a line only 26 kilometers (16.15 miles) long, which gives an average gradient of approximately 4 per cent. The line, therefore, will be one of the highest in the world, and is the second built in South America to cross the Grand Cordillera. It will be much higher than the already existing line between Los Andes and Mendoza, the height of which does not exceed 4,000 meters (13,124 feet).

The highest point on the line, Abra de Huacuyo, is shown distinctly in one of the accompanying illustrations. From this pass the line has to descend to the lower level on a steep slope through a deep but relatively wide valley and thence through the bottom of Unduavi Pass. All this descent is made with a gradient of 6 per cent compensated, and an idea may be had of the difficulties the descent presents when it is known that between the summit at

¹ By Carlos Tejada Sorzano, Assoc. M. Am. S. C. E. Reproduced from *Railway Review*, Chicago.



A SCENE NEAR LA PAZ.

The new La Paz-Yungas Railroad which will cross the Grand Cordillera to the tropical slopes of the Andes is here being bridged over the Guaqui-Arica Railroad.



TYPE OF LOCOMOTIVE IN USE.

Made in the United States locomotives of the "Shay" type have been chosen to take the trains over the heights and around the horseshoe curves of this precipitous road, one of the highest in the world.



LIVING QUARTERS OF CONSTRUCTION GANGS.

Houses like this have been erected at intervals along the surveyed way of this wonderful road for the accommodation of its builders.



A FINISHED ROADBED.

To complete a road like this has been no slight task, since it had to be cut from solid rock mixed with slate. This section is between kilometers 2.1 and 2.3.



BRIDGING THE MINAZA RIVER.

Part of the difficulty of this railroad's construction lay in the necessity for having to build bridges over river beds, and sometimes across whole valleys as though they were mere canyons.

Huacuyo and the point called Pongo there are not more than 3 or 4 kilometers of tangent, there being a difference of altitude of 1,200 meters (3,937.2) feet.

Switchbacks, which are so frequently encountered on other mountain lines, and which present so many inconveniences when it comes to operation, are avoided and the descent accomplished by many horseshoe bends, the radius of the curves being reduced to 60 meters (196.86 feet.) A continuous line is thus followed which it will be possible to operate without difficulty, using American engines.

The work on this descent presents very interesting features, due to the imposing height of many of the cuts, most of them in rock, and because of the conformation of the rock, for the most part slate.

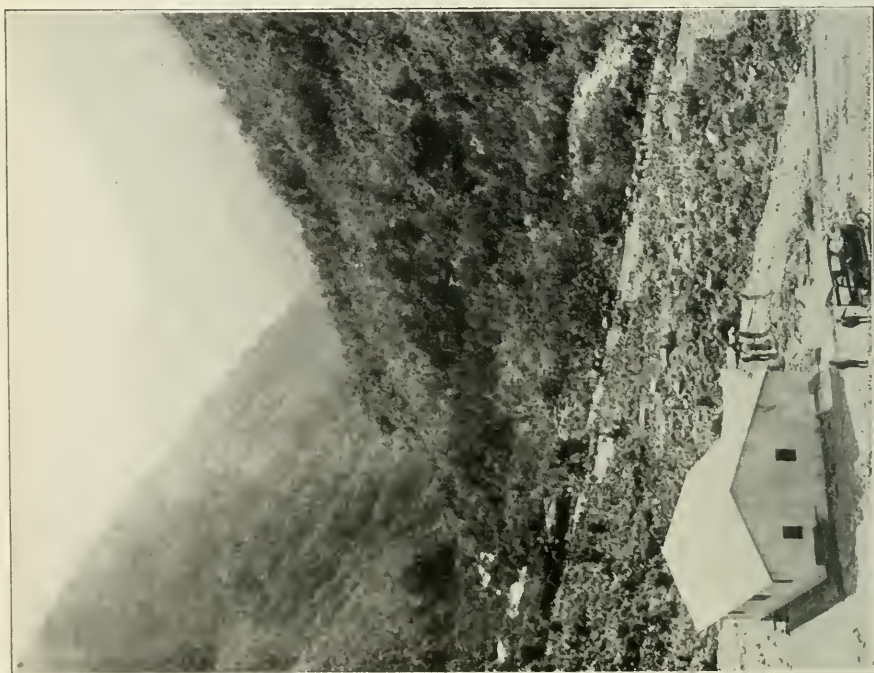
The line to the Yungas will offer the traveler the greatest possible contrasts in so relatively short a journey, due to the conformation of the valleys and the great descent that is attained in a run of less than 50 kilometers (31 miles), in the course of which the principal mountain ridge, generally covered with snow, is crossed, and then reaching the part of the valley where, as may be seen in one of the photographs, there is a most exuberant vegetation, entirely covering the skirts of the mountain. In its one hundredth kilometer the railway reaches a level of only 1,100 meters (3,609.1 feet) above the sea; thus in less than 75 kilometers (46.6 miles) a difference in level of 3,500 meters (11,483.5 feet) is attained.

This line, the construction of which was initiated with very small resources in 1915, has made good progress recently, due to the help of a loan placed by the Government of Bolivia in the United States with the firm of Chandler & Co., of New York and Philadelphia.

Once the great difficulties of the descent and crossing of the Cordillera are overcome and as soon as a part of the railway is placed in operation, which it is expected will be soon, the Bolivian Government proposes to extend the line to the head of navigation on the Beni River. Thus in the near future, by means of the line now under construction, the crossing of the Cordillera of the Andes will be accomplished at the highest point reached by a railroad. The Pacific will be connected with the rivers of the Amazon basin, establishing a transcontinental line between the port of Arica on the west coast and the Brazilian port of Para.

This program, which at the moment seems perhaps rather ambitious, must, nevertheless, be considered as within the actual power of the Government of Brazil. The distance which has to be traversed is not very great, less than 350 kilometers (217.5 miles), and the greatest of the difficulties are those which are now in progress of being mastered or have been in part already mastered.

In other respects the line promises to greatly develop the production of coffee, cocoa, fruits, wood, and other products, as soon as the first 80 kilometers are completed. As there is abundant water power



YERBABUENANI.

This section on the eastern slope of the Andes, through which the railroad passes on its descent from Abra de Huncuyo, is rich in tropical verdure.



ROCK CUT ON THE APPROACH TO "ABRA DE HUNCUYO."

[Kilometer 21 on the line of the Yungas Railway as it nears its highest point.]



NEARING THE YUNGAS TERMINAL.

Laying ties on the final miles of the road which clings to the broad slopes of the mountains.



YUNGAS STATION.

The eastern destination of the railroad which will open more freely to the world the Yungas Valley's luxuriant supplies of coffee, coca, cacao, rubber, and tropical fruits.

all through the valley where the line is located, it is the intention to electrify immediately. The Government has already made some studies for this, and is actively negotiating with important American concerns for the necessary capital.

TEACHING SPANISH IN NEW YORK CITY SCHOOLS¹

THE history of the introduction and development of the teaching of the Spanish language in universities and secondary schools in the United States is unique, since it is without precedent or parallel in the educational history of the country. The first professor of French, Spanish, and belles lettres, George Ticknor, author of the well-known "History of Spanish Literature," was appointed at Harvard in 1816. Since then the teaching of Spanish was barely able to subsist under the smothering educational tradition of the times. Latin, German, and French—according to the judgment of the educators—were the only universal literatures and they alone provided the disciplinary material needed for the intellectual preparation of those who were to form the directing class of the North American Republic.

At the close of the nineteenth century the first Pan American Congress, the war with Spain, the occupation of Cuba, and the acquisition of Spanish-speaking colonies, created a wave of interest in the teaching of Spanish in the universities. This did not extend to the high schools, for although the De Witt Clinton High School and The Commercial High School, both of New York City, on their opening in 1896 and 1904, respectively, established departments of Spanish, it was not until 1910 that official statistics recorded that out of a total of 739,143 students enrolled in the public secondary schools, 4,960 were engaged in the study of the Spanish language, and in private secondary schools, 363 out of 78,510. In 1915 these figures increased to 31,743 students in the public and 3,405 in the private schools. From that time on the teaching of Spanish has steadily advanced to its present position in the United States.

Many attribute this rapid advance in the teaching of the Spanish language to purely commercial interests, losing sight of the fact that from 1900 to 1915, owing to work in experimental psychology and to new democratic-industrial currents, a new educational philosophy was in process of formation which resulted in the surprising evolu-

¹ By Arturo Torres, A. M.

tion of the secondary school from a preparatory school into the people's university; the new interpretation of the "theory of formal discipline," which exploded the myth that the mental discipline provided by the study of German and Latin is superior to that gained by the study of Spanish or French, and established the principle that the methods of study are as important as the subject matter itself; and finally the pragmatic attitude adopted by the population in general—industry, business, and education—demanding practical results of every subject included in the curriculum.

If in the light of the results just mentioned, the geographical, political, and industrial position of the United States is considered in relation with that of its Spanish-speaking neighbors, it is easy to explain and understand the progress made in the teaching of Spanish during the last four years. It holds a leading and surely permanent position, especially in schools of the large cities on the Atlantic and Pacific coasts and in industrial centers in the interior of the country.

In the city of New York, always attentive to the educational demands of the times, Spanish has made its first and most rapid strides. Statistics showing the number of students registered in the language courses of the secondary schools are as follows:

	1917		1918		1919
	March.	October.	March.	October.	March.
French.....	14,714	14,970	17,343	19,055	20,920
German.....	23,898	17,511	12,956	6,216	3,287
Greek.....					197
Italian.....			56	63	66
Latin.....	17,409	15,665	16,479	11,686	15,234
Spanish.....	13,362	16,375	21,771	22,151	25,729

According to data obtained from the Board of Education of New York City, in October, 1919, the number of Spanish students had increased by 10 per cent over those of March. The total matriculation of the 24 high schools of the city of New York reaches 71,000 in round numbers and Spanish is taught in all of these schools by a corps of 195 competent teachers. Since March, 1917, Mr. Lawrence A. Wilkins has been acting as director of modern languages. To his initiative is due the unification of instruction, the formulation of a graded curriculum, and the determination of the aims to be pursued in the teaching of Spanish. The "Bulletin of High Points" has served as adviser and as a source of inspiration to the teachers; and other cities (one of them Philadelphia) have commenced publications of the same nature.

The New York local chapter of the American Association of Teachers of Spanish has 250 members. At its meetings some distin-

guished Spanish-American is always invited to speak to the teachers and the various problems confronting them are discussed in the Spanish language. With the object of promoting interest in this study the association holds one or two public contests each year in which the students of the several secondary schools take part.

The teaching of Spanish in the city of New York follows two general aims which are dependent upon the mastery of the fundamental principles and the acquisition of habits of foreign language study: the academic aim, which is to provide the pupil with the preparation necessary to continue the literary and practical study of Spanish after graduation from the secondary school, and the commercial or vocational aim, which is to provide the youths who immediately after graduation enter the business world with sufficient grammatical knowledge and practice in writing and speaking to enable them in a short time to carry on their work efficiently.

The courses continue two, three, and four years, divided into semesters. There is a tendency to eliminate the two-year course and to adopt Spanish as the language to be studied throughout the three years of the junior high school, so that the pupil begins studying the foreign language of his choice at an earlier age, 12 years.

A great deal might be said concerning the methods and procedure followed in the teaching of Spanish in the New York City schools, but space limitations permit only a brief enumeration of them. The teaching is not formal. Neither the study of grammar nor translation in themselves constitute the objects, but these are rather the means employed to acquire the fundamental principles, the necessary vocabulary and the basis for oral and written composition. Besides the textbook, wall charts and cards are used in the study of grammar, by the aid of which rapid practice on the ending of verbs and the uses of the subjunctive and pronouns is secured. Reading is not only an opportunity for exercise in translation, but is also cultivated for rapid conversation, for oral repetition, and for dramatization of the material, so as to give life to the story; and it is not limited to textbooks, as once or twice a week in the advanced classes some newspaper or magazine published in Spanish is read.

Oral and written compositions in these upper classes are on matters of the day and relate to industries, commerce, and politics of the United States, Spain, and the Spanish American countries. Even in classes of the first semester, Spanish is the language employed in the classrooms being used for greetings, farewells, permissions, orders, dates, names of objects in the room, names of the tenses of the verbs, etc. English is used only to present the new lessons or when necessity demands.

During the war the pupils translated into Spanish the notices and posters published by the Government for the sale of War Savings stamps and Liberty bonds, and made attractive posters for the cor-

ridors and classrooms of the schools, while in many classes the exercises began with the singing of the national hymn and songs of the United States in Spanish. In one of the high schools the custom has been formed of devoting an hour each month to singing Spanish airs, at which time from 800 to 1,000 girls gather in two large rooms.

The students publish various monthly papers and among them are *El Eco de las Españolitas*, *Verde y Blanco*, *El Estudiante Comercial*, and *La Voz*. In every high school there are Spanish clubs which offer to the more interested students opportunities to speak and develop fluency in the use of the language. These clubs are called *La America Latina*, *Rubén Darío*, *El Círculo Calderon*, etc., and undertake the presentation of simple plays. The primary purpose of these activities is to break the routine of study, to increase the interest in the language, to bring the pupil in touch with the spirit and customs of the people whose native language it is, and above all to make him feel that he is studying a language full of vitality and beauty.

As has been stated, Spanish occupies a place of honor in the secondary education of New York City. There is no doubt that the technical side of Spanish teaching could be improved and greater advance made if the higher institutions of learning of New York, such as Columbia University and New York University, would establish courses for the preparation of teachers of Spanish. Another measure which merits reconsideration by the authorities of the department of education of New York State is the so-called "Amos law," passed in April, 1918, which says:

Qualifications of teachers: No person shall be employed or authorized to teach in the public schools of the State who is—

3. Not a citizen: A person employed as a teacher who is not a citizen may continue in such employment, provided he or she, within one year from the passage of this act, shall make application to become a citizen, and within the time thereafter prescribed by law shall become a citizen.

The above law, enacted at a time when necessity and prudence dictated such a policy, does not seem to be reasonable to-day, especially if one bears in mind that it is of advantage to increase the friendly relations existing between the United States and Spanish-speaking countries, and also that in those countries American citizens are free to teach English, and are even offered all sorts of facilities for exercising their profession.

That law not only prevents the obtaining of good teachers of Spanish, but it also hinders all international interchange and reciprocity.

The mayor of New York City said recently with reference to the Spanish language:

We should especially encourage the teaching of Spanish in all the high schools, colleges, and universities of our great city. It should be the chief foreign language studied by our youth.

CORN CULTURE IN BRAZIL¹

NOT so long as 10 years ago Brazil was importing corn in ever-increasing quantities. Due to high freight rates it was cheaper to bring corn from Argentina and Uruguay than it was to ship it to Rio and other large cities from the corn-producing States of Brazil itself. In 1910, 1911, and 1912, the value of the corn produced was approximately, \$70,000, \$140,000, and \$200,000, respectively (United States currency). This was, of course, like carrying coal to New Castle, for all of the 1,278 counties of Brazil are capable of producing corn to more or less advantage.

It was in 1914 that plans for holding a corn show in Brazil were launched by the agricultural journal, *Chacaras e Quintaes*. A campaign was started for the purpose of stopping the importation of corn and to increase the quality and quantity of its domestic production. The progress of the corn show has been proportionate to that of the development of production. In 1915 there were only 55 exhibits; in 1916 there were 450; in 1917, 1,000; and in 1918, over 2,000 exhibits.

The war came on and a great stimulus was given to all agricultural production. Brazil became an exporter of corn, and, on account of the much shorter haul from northern Brazil, most of it was shipped from the States in that section of the country. The exports during the last two years have been valued at over \$1,000,000 for each year.

Brazil has long been at a disadvantage in the consideration of all questions of economics and production because of the absolute lack of reliable statistics. It was not until 1911 that a census was compiled of the cattle and hogs of the country. Although every year the production of the principal crops in the leading agricultural countries of the world are given in the year book of the United States Department of Agriculture, no mention is made of Brazil. This has caused no little confusion and misapprehension concerning the resources of this vast country. The directory of statistics of the Department of Agriculture has prepared tables, however, which, while not absolutely accurate, give a very careful estimate of the production of corn in Brazil, covering all but 146 counties of that country. These statistics refer to the crop of 1916-17, for the corn crop in Brazil extends from one year over into the next. The general month of planting is September with harvest in May and June for central and southern Brazil. In northern Brazil two or even three crops may be harvested in a single year. January and February are the months for planting the principal crop.

It will be seen from the table that the production of Brazil is given as 51,746,494 quintals, or approximately 202,000,000 bushels, pro-

¹ By B. H. Humnicutt, M. S. A., Director Lavras Agricultural School.



A CORN AND COFFEE PLANTATION IN BRAZIL.

In the Brazilian plantations corn is very often planted among the growing coffee trees until the latter so cover the ground that there is no room left for the corn. On the right of the picture is a small portion of an extensive cornfield; all of which at the time this photograph was taken gave evidence of yielding from 40 to 50 bushels per acre; to the left, and in the distance can be seen part of a plantation of coffee containing about 165,000 trees.

duced on a little over 3,000,000 hectares, or something like 7,300,000 acres. This gives an average yield of 27.5 bushels to the acre. That for the United States is estimated at 27 bushels to the acre, and for Argentina, 27.5 bushels per acre. Brazil, therefore, shows as good an average as these two leading countries in the production of corn.

The next greatest rival of Brazil in the production of this commodity is Argentina. Of course, the United States produces nearly 70 per cent of the corn of the world. It will be noticed, however, that the percentage of the United States in the compiled statistics would be considerably reduced with the inclusion of the production of Brazil, and would be still further decreased if all of the nonreporting countries had as reliable statistics as are available for the United States.

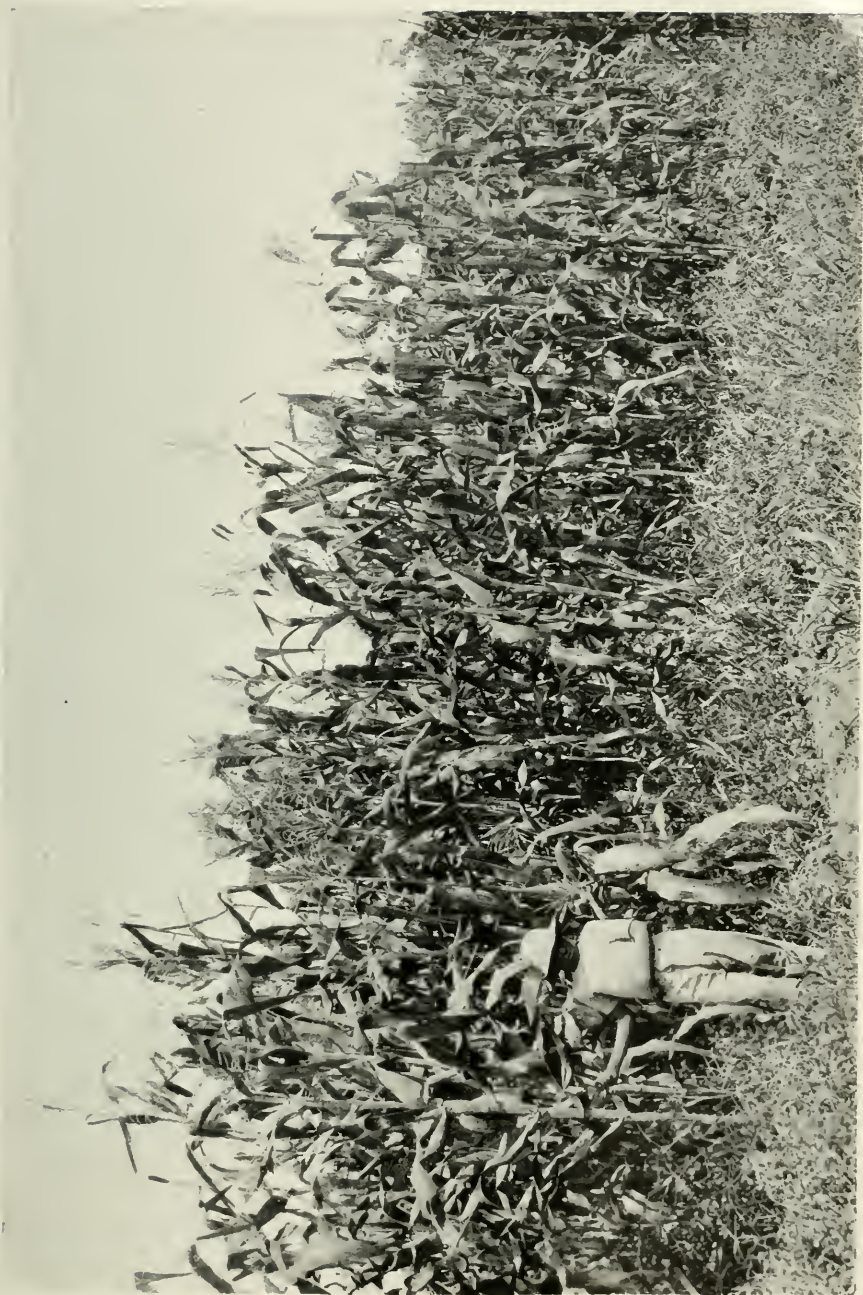
The comparison of the chart showing the production of all of the countries is not fair to Argentina. It is evident that a crop-failure year was taken as a basis for these figures. The area planted in Argentina is given as 3,629,570 hectares, which is about the average acreage for the country. The production is given at 14,496,000 quintals, or 1,629,600 metric tons. The 10-year average of production for Argentina is over 4,000,000 metric tons. The disastrous nature of these crop failures may be seen in the comparison of production between the years 1909 to 1912. They are:

	Acreage.	Production.
	<i>Hectares.</i>	<i>Metric Tons.</i>
1909-10.....	3,005,000	4,450,000
1910-11.....	3,216,350	703,000
1911-12.....	3,422,000	7,515,000

The harvest of 1911-12 was 10 times that of 1910-11 on a slightly increased acreage. When there is such a bounteous crop, corn is sometimes used for fuel in the railway locomotives, and when the crop is an absolute failure the resultant need is proportionately great.

These extremes do not occur in Brazil. All the corn is planted in a very restricted area in Argentina and a great drought year almost destroys production. In Brazil, corn is planted all over its immense territory; and while short crops may be produced in small areas at times, it would hardly be possible for a complete failure to occur in all of these sections simultaneously.

As is natural in a country extremely favorable to hog production, the raising of hogs is commensurate with the raising of corn. With a record of about 18,000,000 hogs annually, Brazil comes second only to the United States. Germany was formerly at the top of the list with 25,000,000 head, but her herds were greatly sacrificed during war times, when foods and fats were at such a premium. Hogs and hominy go hand in hand, and as the world's demand upon Brazil for hog products increases, the amount of corn exported as grain will



NEAR-BY VIEW OF A BRAZILIAN CORNFIELD.

Such is the vigor of the soil in Brazil that corn has a tremendous growth wherever it is planted; stalks 12 or even 14 feet high are quite common. The photograph reproduced above was taken near Vespasiano, in the State of Minas Geraes; it gives a fair idea of the average cornfield in Brazil.

proportionately decrease, as the corn will leave the country in the lard bucket. Brazil's other exports have been, until recently, coffee, cacao, hides, maté, and rubber. The imports have included a great many food products, such as rice, beans, canned goods, preserved meats, although war conditions made great changes. Brazil was compelled to look to her own corn fields.

While corn is the easiest grain to produce, this very fact works against the betterment of cultural methods. The ordinary way of cultivating corn in Brazil is extremely rudimentary. Timber is cut down several months before planting time and allowed to dry on the ground. Just before planting, generally in the month of August, fire is set to the field to burn the limbs, leaves, and mass of entangling vines, so as to clear up the ground. A few days later the seed are planted in the ashes with the use of a hoe to dig the hills. Sometimes the heavier timbers are sawed into lumber and the lighter trees used for firewood, but often this is only done the second or third year.

As the land has been in timber there are few or no weeds the first year. One or two hoeings are given the crop, cultivation being very difficult on account of the overlapping timbers on the ground. The corn is harvested in May or June. In Brazil it is called breaking corn, not pulling corn. This is literally what is done, as the stalks grow so high—sometimes 12 or 14 feet—that the stalk must be broken down that the ear may be reached. While corn is planted in hills, no effort is made to have these hills in rows. Anywhere from 7 to 12 grains are planted to the hill. On account of the vigor of the fresh ground this is held to be necessary. Otherwise all of the force of the soil would go to make stalks so high that they would be a nuisance.

The cattle are generally turned in on the field, after the corn is harvested, to eat the stalks and such weeds and grass as have grown up in the fields. Often a wild plant of the solanaceæ or nightshade family will be found in the fields. This plant is highly nutritious, as the analysis shows it to have about 22 per cent of protein. The cattle are extremely fond of the plant. It grows wild and so far successful cultivation has not been made.

The ears are pulled with the shuck on, as it is claimed that the corn keeps better in the crib this way. There being no extreme weather, maturity of corn gives no concern, although there may be slight frosts in central and southern Brazil before the harvest is made. Germination of seed is not a problem as it is in the United States. Tests have nearly always shown a very high percentage of germination even in some unselected corn. Seed corn is generally taken from the crib at the time of planting, and no special care used in the selection or shelling of the ears. For this reason there are many barren stalks and many unfilled ears of corn. Good selection of seed locally grown is the solution of this problem. Seed brought from a great distance



GATHERING CORN IN THE STATE OF SÃO PAULO, BRAZIL.

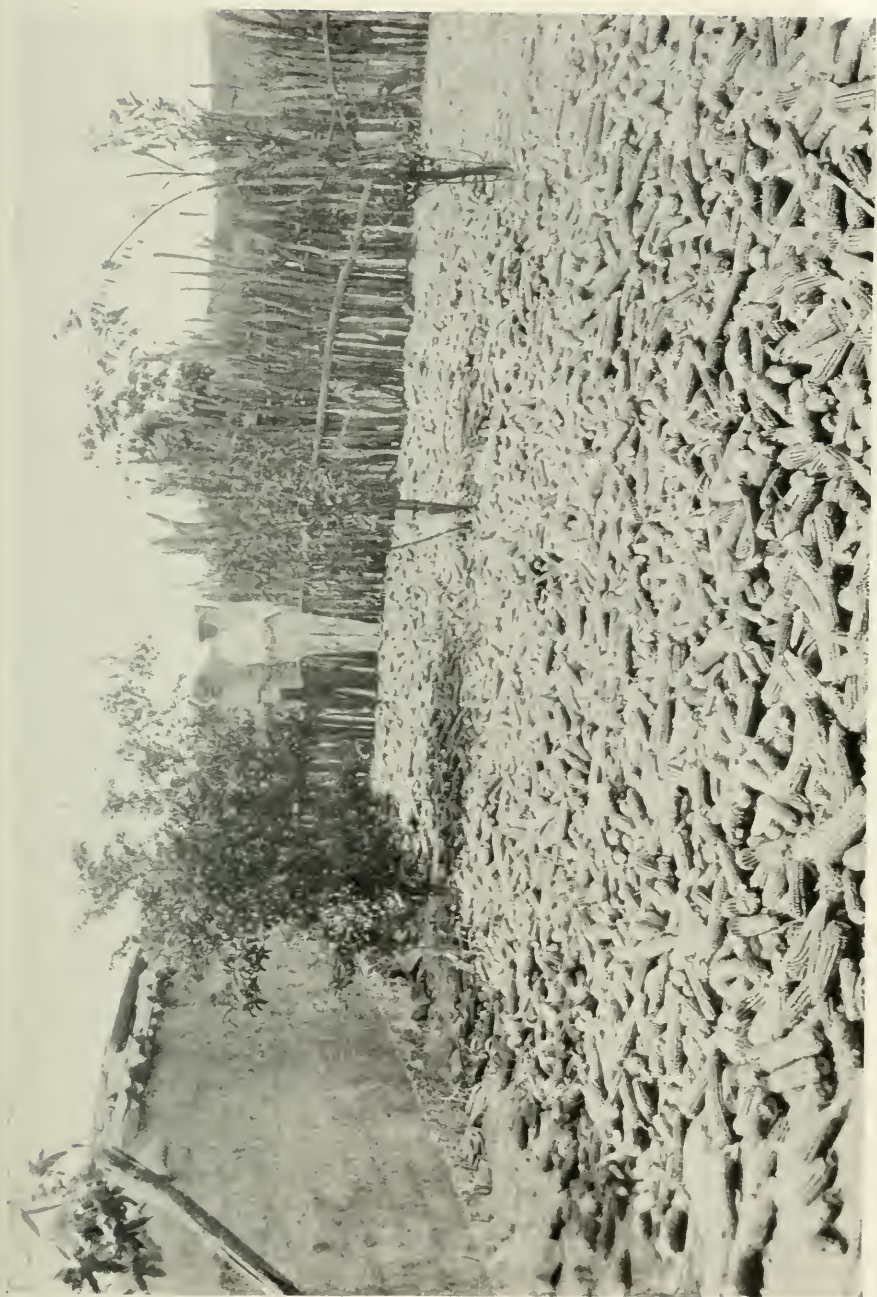
In Brazil "pulling corn" is commonly called "breaking corn," and it is literally what is done, as the stalks grow so high that they must be broken that the ear may be reached.

is not easily acclimated. This is especially true of the dent seed corns brought from the United States. As a rule they are very disappointing to the grower.

The soft corns are not suitable for Brazil on account of the weevil, which is extremely destructive of this type of corn. The corn generally grown is of the flint varieties. They differ from the Argentine flint corns in that the ear is much longer and larger and the grain is larger. They are different also in that the Argentine corn conforms to type and has a uniform color and size (very desirable in export corn) whereas the Brazilian corn lacks uniformity in color, size, and quality. There is now a tendency to select the seed more carefully and establish firm types of both yellow and white flint corn. Some farmers have been selecting after a fashion for a long number of years, and already have fairly well fixed types, especially of the white flint corns.

One great advantage of flint corns is that they contain a much smaller percentage of moisture and are better for exportation. It has always been a problem in the exportation of corn from Brazil to so reduce the moisture as to prevent molding, and to kill the weevils so that the corn would not be destroyed en route. This is the same problem which has so retarded the exporting of the Brazilian beans to the world markets. The war, however, gave a great impetus to the immunization processes. Some years back a process was patented in Brazil by a German engineer by which the corn was highly heated in a partial vacuum, thus reducing the effect of the heat on the corn and increasing the effectiveness of the extraction of moisture. Several types of immunizers have been developed. In one the grain is revolved in wire cylinders and allowed to be constantly in motion while subjected to heat. But the most interesting of the methods employed was invented by a French engineer. The corn or other grain is placed in a large steel cylinder holding 500 sacks at a time. The air is withdrawn to produce a vacuum. At the same time pure carbon bisulphide is introduced. The vacuum causes the thin shells of the eggs of the weevils to burst and the bisulphide kills any living weevils. The grain can then be stored indefinitely without the reappearance of the weevils or without heating. Grains thus treated have been successfully exported to Europe on numerous occasions.

The outstanding need in Brazil for the betterment of corn production and methods of corn cultivation is the introduction of farm machinery to take the place of the slow and expensive hand processes. If labor were not so very cheap Brazil could not at this time hope for any competition with the outside world, since so much unnecessary work is done by hand. After a few years, especially on hilly land, the fertility begins to be exhausted and the yields to decrease. Until of late years the ordinary procedure has been to abandon such land and cut down more forest. The abandoned corn land was either



DRYING CORN IN A BRAZILIAN PLANTATION.

The drying process consists merely in spreading the husked ears on the ground, where they are left exposed to the hot sun until thoroughly dry. A number of plantations harvest as much as 20,000 bushels of corn a year, and 2,000 bushels is a very common crop for a great many farms.

seeded to grass for pasture or allowed to grow up in timber again. Under this wasteful way of handling land an end of the available timber would inevitably be reached. This end has come to most of the country. Not only has the cultivatable land become scarce, but timber and lumber have reached unheard of prices.

The solution of this is the same which has faced the farmers of all lands—the necessity for the using of every known process of restoring and maintaining fertility. The land is not so soon exhausted if it is plowed. Erosion is greatly diminished. Where the land is not plowed it must be burned off every year so that the seed can be planted. This is done to such an extent that millions of pounds of organic matter are lost annually in Brazil. The whole month of August, and sometimes for nearly three months afterward, the skies are covered with smoke and the air is laden with carbon. The fertility of the land literally goes up in smoke.

The use of the plow, seeder and cultivator would greatly increase the production of corn in Brazil and at the same time greatly reduce the cost of production. Figures given of those sections where the land was plowed and cultivated showed that the corn cost about 20 cents per bushel in the crib. There are already a number of farms in this country employing modern methods of farming, but only a small beginning has been made.

On account of the long dry spell of nearly three months that comes in central Brazil every year, some supplemental food must be given to the cattle running on the pastures, unless the number is to be limited to the capacity of the pasture at its lowest carrying power. Hay is easy to make, but it is evident that the making of it lies in the use of silos and corn ensilage. Because of the extreme height of the corn, a tremendous amount of forage can be grown to the acre. Cement is very expensive, as it is all imported, so that the concrete silo is out of the question. Good timbers for wooden silos that will resist the climate are hard to find. Brick is cheap and can be made on almost any farm, so the brick silo, reinforced with iron hoops seems to be the best solution. Several silos have been in successful operation proving that they will in time become recognized as necessary in the raising of both dairy cattle and beef herds.

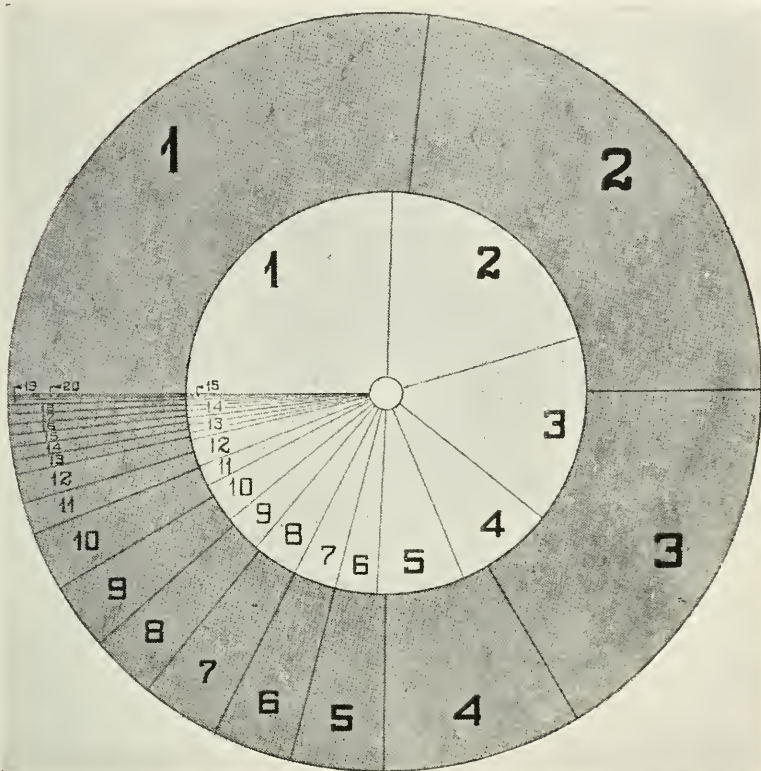
The large farm is the rule throughout Brazil, but the prevailing custom is to have the corn planted on the share system. It is common practice for the landowner to receive from one-third to one-half. The laborer furnishes the work and the owner the land. Neither fertilizers nor farm implements, other than the hoe, are used, and the owner of the land must haul the corn for both, at harvest time.

It is the custom to plant beans in the corn after the pollen has been shed and the leaves begin to turn yellow. That, in part, accounts for the long time between the planting and the harvesting of the corn.

DIRECTORIA GERAL DE ESTATISTICA DO BRASIL

(General Bureau of Statistics of Brazil)

ACREAGE AND PRODUCTION OF CORN IN BRAZIL.



INNER CIRCLE.

ACREAGE BY STATES.

OUTER CIRCLE.

PRODUCTION BY STATES.

	Hectares (2.47 acres).
1. Minas Geraes	761,259
2. Rio Grande do Sul	600,000
3. São Paulo	451,763
4. Paraná	249,800
5. Rio de Janeiro	213,064
6. Goyaz	100,204
7. Santa Catharina	102,042
8. Ceará	116,728
9. Bahia	99,696
10. Pernambuco	103,387
11. Espírito Santo	53,578
12. Parahyba	71,376
13. Matto Grosso	21,948
14. Maranhão	23,403
15. Sergipe	25,551
16. Piauí	23,130
17. Alagoas	13,833
18. Rio Grande do Norte	15,703
19. Pará	7,825
20. Amazonas	1,877
21. Acre Territory	1,400
22. Federal District	476
Brazil	3,058,043

	Quintals (129.46 pounds).
1. Minas Geraes	13,854,917
2. Rio Grande do Sul	12,000,000
3. São Paulo	8,555,497
4. Paraná	4,546,360
5. Rio de Janeiro	2,094,773
6. Goyaz	1,756,474
7. Santa Catharina	1,743,700
8. Ceará	1,478,172
9. Bahia	1,424,241
10. Pernambuco	1,321,957
11. Espírito Santo	695,149
12. Parahyba	665,742
13. Matto Grosso	291,865
14. Maranhão	285,908
15. Sergipe	269,444
16. Piauí	220,437
17. Alagoas	191,842
18. Rio Grande do Norte	188,713
19. Pará	108,252
20. Amazonas	26,411
21. Acre Territory	19,600
22. Federal District	7,035
Brazil	51,746,494

The corn is pulled only after the beans are harvested. Corn is also planted among the growing coffee trees until they so cover the ground that there is no room for the corn. Even in the rice plantations, where irrigation is not used, it is the custom to plant rows of corn. A number of farms harvest as much as 20,000 bushels of corn a year, and 2,000 bushels is a very common crop for a great number of farms.

The importance of the Brazilian corn crop will increase rapidly in the next few years as an internal factor in her prosperity, and will figure directly in the world's trade as well as indirectly through her production of hogs and cattle. Little corn is at present used for anything but human feed and hog feed, but the time will come when it will be fed to cattle and utilized in industry.

MEXICO, PERU, AND THE MANILA GALLEON¹

MEXICO.

THE viceroyalty of New Spain, or, more exactly, that part of it which lay within the jurisdiction of the audiencia of Mexico, was the principal market for the cargoes of the Manila galleons. In fact, their sale and consumption were limited to this field, and save for a brief period the trade with the other provinces of the Spanish American Empire was contraband. The interest of the Mexicans in the commerce was second only to that of the Manileños, and within Mexico itself the coming of the galleon was as eagerly looked for as that of the flota from Spain. "The failure of the Philippine galleon to arrive causes a scarcity of many things in this country," said the Marqués de Croix. And the viceroy adds significantly that it promises a more brilliant fair at Jalapa, the town in the tierra templada above Vera Cruz, where the cargo of the fleet was sold.

All classes, from the Indians of the torrid lowlands, whom Spanish-made conventions and laws compelled to wear clothing, to the pampered creoles of the capital, went dressed in the fabrics of the Far East—the cottons of Luzon or India or the silks of China. "The Chinese goods form the ordinary dress of the natives of New Spain," declared the Reglamento of 1720; and, says the great Viceroy Revillagigedo, "the Philippine commerce is acclaimed in this kingdom because its merchandise supplies the poor folk of the country."

¹ By William Lytle Schurz, reproduced from the *Hispanic-American Review* of Washington. Illustrations from Pan American Union photographic collection.

The bulk of the Chinese silks were consumed by the Spaniards and creoles, and the better-to-do mestizos of Mexico, though the provincial towns also took a share of them. The proverbial wealth of the viceregal capital usually insured a rich market to the merchants who distributed the cargo of the galleon. This wealth, founded largely on trade and mining, was a very substantial fact, though it was partly responsible for the exaggerated glamor which the dazzled and inaccurate imagination of Europe had thrown over the whole Spanish empire of the Indies. Men like Thomas Gage and Gemelli Careri, and, in later times, Alexander von Humboldt, actually saw the luxury and display of Mexico. "Both men and women," says the Irish friar, "are excessive in their apparel, using more silks than stuffs and cloths." And, writing of the 2,000 or more coaches that rolled back and forth each afternoon in the Alameda, "full of gallants, ladies, and citizens, to see and be seen, to court and be courted," he observes that "they spare no silver, nor precious stones, nor cloth of gold, nor the best silks from China to enrich them." It was in the "rich and comely" street of San Agustin that these silks had been retailed, as La Plateria was the center of the jewelry trade, where, says Gage, "a man's eyes may behold in less than an hour many millions worth of gold, silver, pearls, and jewels."

Not only did Mexican merchants make a large profit in the sale of these goods, but they often increased their profit by making their purchases at Manila instead of at Acapulco, and thereby eliminating the Manileño as a middleman. This practice must have begun very early, since a protest of 1586 declared: "One of the things which has ruined this land is the large consignments of money which rich persons in Mexico send here." A law granting the petition of the islanders was issued seven years later. However, the continued complaints of the Manileños are evidence of the ineffectiveness of the decree. In 1602, they threatened to abandon the colony if the Mexicans and Peruvians did not limit their operations to the American side. Some of the latter were men who had accumulated a fortune during a few years residence in the islands and still maintained their trading connections in Manila by means of reliable agents, who represented them for a commission. These agents were registered citizens, and as such were legally qualified to draw boletas and consign goods on the galleon. They were so well supplied with money that the bona fide merchants could not compete with them, since prices to the Spaniards were sometimes doubled when the Chinese learned that there was a large supply of Mexican and Peruvian silver in the city.

Sometimes the American merchants would go to Manila in person to make their purchases, and then return on the next nao. However,

a law was issued in 1604 to prevent these business trips out to the islands. "The greater part of the people who each year go from New Spain to the Philippines," it says, "do not remain there, but return presently (*luego*) after employing the money which they have." The viceroy was not to give permission to anyone to go to the Philippines without such person giving bond to become an actual citizen of the colony, and agreeing to reside there for eight years. but such legitimate emigrants might take out with them whatever funds they possessed, regardless of the limitation of the permiso on the passage of silver to the islands. After the Procurador Grau y Monfalcón had declared that most of the evils of the trade were due to the interference of the Mexicans—whom the Manilaños always made the scapegoats for their own excesses—the prohibitions were reissued in 1638. At the same time the King refused the request of the City of Mexico for permission to invest annually 250,000 pesos in the Philippine trade. The Mexicans had alleged as the reason for their petition the expense of maintaining the armada de Barlovento, whose function was the policing of the Gulf and Caribbean region against pirates. A few years later the audiencia of Manila excluded several Mexican merchants from trade in the islands, confiscated their goods, and fined them 273,113 pesos. However, in 1683, the city of Manila complained to the King that citizens of Mexico had sent 400,000 pesos for investment, and a few years later the Andalusians charged that, in 1686, Viceroy Galvez sent two ships to Manila with merchants from both vice royalties, and all well supplied with money. These men were said to have gone on to China, and to have established factories there and left samples of goods to serve as models for the Chinese silk weavers. However, it is clear that even if any such enterprise was undertaken at that time it was not prosecuted beyond the most initial stage. And though the reglamentos of 1720 and 1734 ordered the confiscation at Acapulco of all goods known to be consigned to Mexicans, "of whatever rank, quality, or condition they may be," yet Revillagigedo informed his successor in 1754 that it was morally impossible to keep the Mexicans from sending money to Manila to invest in the galleon trade. Even the closest official surveillance could not discover the frauds which were so skillfully concealed by a resort to "dummies." In 1776 the fiscal of the Council of the Indies, Tomás Ortiz de Landazuri, told Charles III that the Mexicans were the real masters of this traffic, "reputed to be the most fortunate and lucrative of all those that are known in Europe and America."

Silk manufacturers were long maintained in Mexico on the basis of raw materials from China and from native production. The Mexican silk industry was older than the galleon commerce, and in fact dated from the very time of Cortés. The area of production

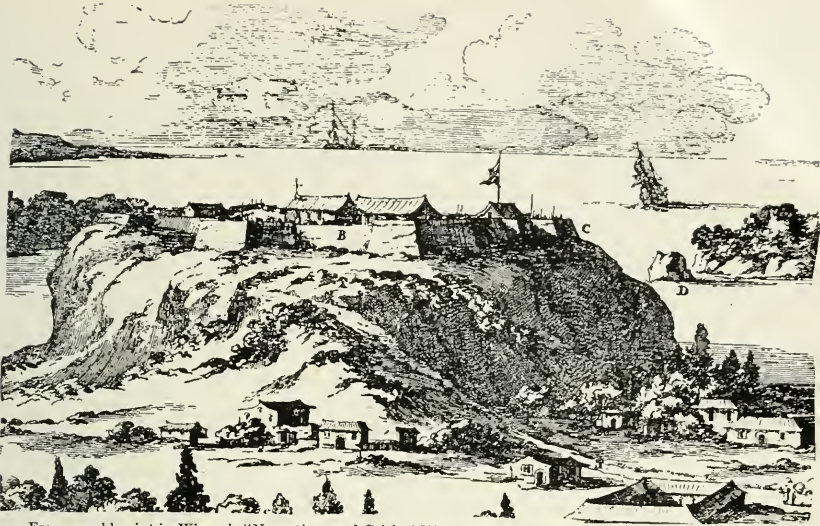
centered in the Misteca district, and the city of Puebla gained considerable local fame for its looms and neighboring mulberry groves. Until the Peruvian market was closed and the disastrous Chinese competition had begun to undermine its prosperity the prospect for the native silks was very bright. In 1611 the Viceroy Montesclaros, arguing for the suppression of the Acapulco trade, said that Mexico could supply all her own demand for silk from the Misteca and other sources within the country. However, the decline had already set in, and the local manufacturers were henceforth dependent upon the crude Chinese silk. Grau y Monfalcón declared in 1637 that over 14,000 laborers were engaged in this industry in Mexico, Puebla, and Antequera. The procurador asserted that the oriental silk was superior in quality to that produced in the Misteca district, which was moreover inadequate to supply the local demand in Mexico.

PERU.

Peru early promised to be an even more lucrative market for oriental goods than was New Spain. Here was a population wealthy, inordinately given to luxury and display, and recklessly extravagant. In the Calle de Mercaderes, or Street of the Merchants, in Lima, the luxuries of Europe and Asia could be found in the 40 shops, some of whose owners possessed a capital of over 1,000,000 pesos. In 1602 Viceroy Monterey described to the King the luxury of the capital of the great vice royalty. "All these people live most luxuriously," he says. "All wear silk of the most fine and costly quality. The gala dresses and clothes of the women are so many and so excessive that in no other kingdom of the world are found such." High up in the Andes, Potosi, "the Imperial City," and "heart of the Indies," was in the bonanza times, and leading a riotous career of indulgence, for which the stream of silver from the Cerro furnished abundant means. This city of feverish life, a Portuguese Jew called, "by reason of its riches the most fortunate and happiest of the world's cities." A century later Woodes Rogers wrote of the Peruvians:

The Spaniards here are very profuse in their clothing and equipage, and affect to wear the most costly things that can be purchased; so that those who trade hither with such commodities as they want may be sure to have the greatest share of their wealth.

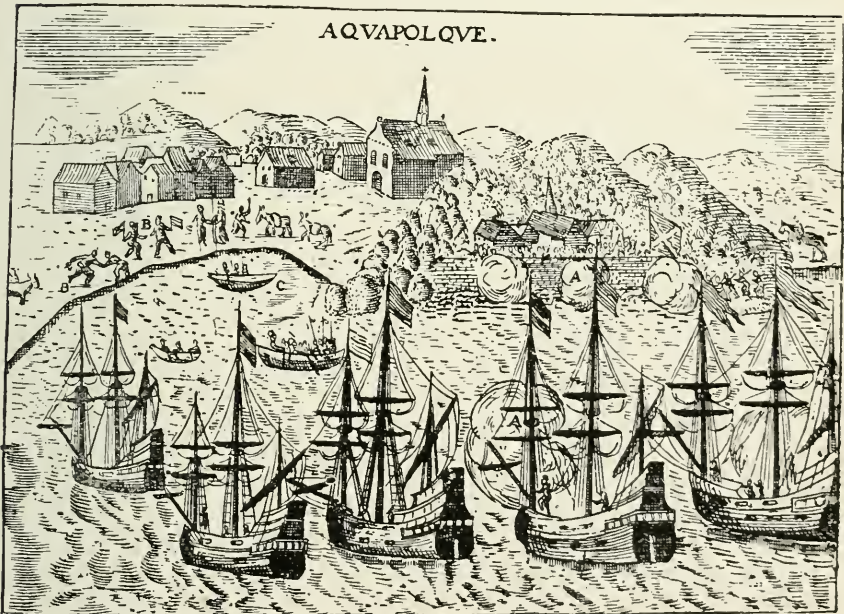
Royal sanction was given for the Chinese-Philippine trade with New Spain, Peru, Guatemala, and Tierra Firme by a *cédula* of April 14, 1579. Gov. Sande early planned a direct trade from Manila to Peru, but it was his successor, Gonzalo Ronquillo, who sent the first ships to Callao. One crossed in 1581 and another followed the next year. Both were highly profitable ventures, and Peruvians and Manileños hoped for an indefinite continuance of the voyages.



From an old print in Winsor's "Narratives and Critical History of America."

A PART OF ACAPULCO.

A bit of the Mexican town through which passed fabulous fortunes in Chinese fabrics, cloth of gold, and jewels, so greatly in demand in the Spanish possessions by everyone, from priest to peon.



From an old print in Hulsius' "Sammlung," 1620.

THE HARBOR OF ACAPULCO.

An interesting conception of this port and settlement, to which, even before 1580, the famous Manila galleons brought their rich cargoes from the Far East.

However, a royal order of 1582 interdicted the traffic at its very beginning, and caused the cessation of the direct voyages. For this new line threatened serious competition with the Porto Bello galleons, which had hitherto supplied this field from Spain. A whole series of prohibitory legislation followed. A law of 1591 forbade trading between Peru, Tierra Firme, Guatemala, "or any other parts of the Indies, and China or the Philippines." A *cédula* of the next year, successively reissued in 1593, 1595, and 1604, merely stated the same principle in another form, in restricting the American trade with the Orient to New Spain. The reiteration of the prohibitions and the severe penalties always fixed for their violation—a ruinous fine, or the confiscation of the property of all implicated in the offense, or even exile or the galleys—show the anxiety with which the central government attempted to maintain the peninsular monopoly in that region. The attempt of Gov. Luis Pérez Dasmariñas in 1596, and the project of Gov. Fajardo in 1620 for sending a yearly ship to Panama, there to make connections with the Peruvian merchants, failed to shake this resolution, as did the petition of Araudía in the middle of the eighteenth century.

It was only in 1779 that the Manileños were permitted to trade directly with Peru. This was during the war of the American Independence, and the concession, which was intended to alleviate the straits of both the Philippines and the American colonies, was limited to two years.

The only other avenue for the entrance of Asiatic goods into Peru was by way of Acapulco, through transshipment from the Manila galleons to the vessels locally known as the "Lima ships." From very early a flourishing trade was carried on at Acapulco between merchants from Peru and the Manila representatives. The islanders welcomed the coming of the Peruvians to the feria, for they were always well supplied with silver, and their competition with the Mexicans for the galleon's cargo raised prices. From 1585 Viceroy Villamanrique levied duties on the exports to Peru, but in 1589 he temporarily suspended the traffic on the grounds that it was contrary to royal orders and that it would moreover cause a scarcity in New Spain, since the arrival of the flota for that year was uncertain. Philip II had issued the inevitable ban on the trade in 1587, two years before the viceroy's act of suspension. This decree, reiterated in 1593 and twice in 1599, was one of the most momentous decrees in the history of the commerce, for it closed, at least legally, a field for oriental imports that would in all probability have been a richer market than even New Spain could be.

However, two navíos de permiso were conceded to carry to Peru the investments of 200,000 ducats in exclusively Mexican products. The latter limitation could not be enforced, and in 1604 all trade

between the two viceroyalties was ordered to cease. "Inasmuch as the trade in Chinese stuffs has increased to excessive proportions in Peru," runs this law, "notwithstanding so many prohibitions expedient to our royal service, the welfare and utility of the public cause, and the commerce of these and those kingdoms; therefore we order and command the viceroys of Peru and New Spain to prohibit and suppress, without fail, this commerce and trade between both kingdoms, by all the ways and means possible. This prohibition shall be kept strictly and shall continue to be so kept," was the mandate that closed the edict. And the decree was reissued in 1609, 1620, 1634, 1636, and finally in 1706.

Several auxiliary laws were intended to aid in the enforcement of the main prohibition. Thus, ships plying between Callao, Guayaquil, Panama, and Nicaragua ports, and which were accustomed to proceed on to Acapulco from the latter, to take on goods from Manila, were ordered in 1621 to discontinue the final and illegal stage of their voyage. Three, all of which apparently dated from 1604, were directly complementary to the central law. One prohibits the carrying of Chinese goods from Acapulco to Peru on a noncommercial vessel under any pretext, such as that they were a gift to a church or charity. For prodigious donations of this kind often furnished a sacrosanct cover to large smuggling operations. A second decree fixed severe penalties for port or ship's officials, whose negligence or criminal connivance was responsible for the passage of any Chinese goods into Peru. The third was a general order to the viceroy of Peru enjoining the "exact execution and fulfillment" of the aforesaid ordinances. The immediate charge of the administration of these laws was to be intrusted to a member of the audiencia of Lima, in whom "entire confidence" could be placed.

Seldom was the execution of any group of laws in the colonial code of the Empire insisted on with equal persistence or rigor. The king charged the "conscience and care of his servants," and trusted to their "complete faithfulness." And, indeed, an inexorable visitador or viceroy might make the laws a reality for short period, as did Viceroy Gleves, and Pedro de Quiroga at Acapulco, and Viceroy Monclova at Lima, while the removal of the lax viceroy of Peru in 1678 showed that they were not entirely a dead letter. However, these violent and temporary resuscitations by unusually zealous officials, while they had a certain deterrent effect over a period, only caused the habitual inobservance of these laws to be the more evident. There were few men whose resolve, even when fortified by the King's express commission, and armed with the dire penalties provided by the laws, could long face the almost unanimous hostility of citizens and fellow officials to these prohibitions.

The venality and corruption in every rank of the viceregal government in Peru seems to have been almost universal. "From viceroy to archbishop everyone trades, although secretly and by the agency of another," wrote the Portuguese Jew, quoted before. These precautions were made necessary by various considerations. The viceroys usually came of noble families, and the traditions of this class, as well as the viceregal instructions, forbade participation in trade, while the clergy were expressly forbidden by law to engage in commercial transactions. Officials were suspicious of each other, too, and the long arm of the residencia might reach them, in spite of the usual power of their accumulations to negative that ordeal. "The corregidores make vast advantages," said Woodes Rogers, the English privateer, "by their seizures, and trading privately themselves * * * The Spaniards say, and I believe, not without reason, that a viceroy, after purchasing his place with all that he has, quits Old Spain like a hungry lion, to devour all that he can; and that every officer under him in all the Provinces (who are 10 times more than are necessary) are his jackals to procure prey for him, that they may have a share of it themselves." Private traders, he says, who refused to compound with the officials were treated with great severity and though seized "in the King's name," the goods confiscated from these men were divided among the customs officers. The most serious revelations of conditions in Peru were made by the royal commissioners, Jorge Juan and Antonio de Ulloa, who visited South America in 1735. "Neither honor, conscience, fear, nor recognition of the fact that they are paid high salaries by the King can keep these officials faithful to their charge," they reported in their confidential report. Customs officials offered inducements to contraband traders to frequent their ports, for the opportunity it gave them to share in the profits of smuggling, and the very guards of the revenue service aided in conveying inland to Lima or up to Cuzco or Potosi goods whose introduction had been notoriously illegal. The same lax state of affairs was found to exist at Guayaquil, the port of entry for the Quito country.

Juan and Ulloa saw Chinese porcelain for sale in the shops of Lima, and Chinese silks were sold and worn quite openly from Chile to Panama, where the oriental stuffs predominated in the garb of the Spanish population, from the vestments of the priests to the mantos and silk stockings of the Limeñas. The trade in goods from Manila was so much more profitable than that in imports from the peninsula that the traffic with Acapulco continued in spite of all the repeated legal precautions that have been enumerated, and by means of the almost universal subornation of compliant officials. The navío de permiso or Lima ship, continued its voyages with more or less regularity after the decree of 1604, and its accompanying and sub-

sequent fulminations, and its operations even survived the *visita* of the relentless Quiroga, who was determined to suppress once for all this defiant traffic, and who at least effected a temporary suspension of its activities. However, at the end of the seventeenth century Peruvian ships were coming to Puerto del Marqués, a few miles north of Acapulco, while in the early part of the next, English privateers tried to take the Lima ship out of Acapulco harbor. "She arrives a little before Christmas," says Dampier, "and brings quicksilver, cacao, and pieces of eight. She takes in a cargo of spices, silks, calicoes, and muslins and other East Indian commodities for the use of Peru."

The *cédula* of 1706, which revived the old prohibitions, comments on "the lack of observance of the laws, and the very serious damage that results from it to the commerce of these kingdoms." "The relaxation of the laws," it continues, "has reached the point where the exportation of oriental goods to Peru has become a frequent and customary traffic." This trade was carried on by other Peruvian merchant vessels that left Callao or some other Peruvian port, with Acapulco, or Puerto del Marqués, as their express destination, or by coasting ships that ran up above the prescribed limits on the west coast to invest in a cargo of the forbidden merchandise. The transfer of dignitaries between the two viceroyalties was a frequent occasion for a voyage, and these ships, southward-bound out of Acapulco, seldom went in ballast. Below the hatches were rich bales and chests, of whose presence the viceroy or archbishop on board either was not cognizant, or which he conveniently ignored, unless they were more directly interested in their ownership.

On the other side of the continent ships carried on a similar, though lesser trade, with other parts of the Spanish colonies. In 1748 representatives of Andalusian commercial interests in Mexico charged that the cargo of the Manila galleon was distributed very widely throughout Spanish America, in contravention of the law which limited its sale and final consumption to New Spain. Imports from this source reached not only Peru, but Guatemala, Tierra Firme, Campeche, Caracas, and the Windward Islands, as well as the Greater Antilles, either by way of Vera Cruz or Panamá-Porto Bello.



THE CITRUS INDUSTRY IN CUBA¹

PERHAPS in no country in the world are more luscious oranges and grapefruit of many varieties found than in the Island of Cuba, yet their production was, until a few years ago, a matter of chance, and the result of the kindly disposition of that particular goddess of nature who has ruled over the formation of Cuba's soil and controls her rains and sunshine. Native sweet and sour oranges, rough lemons, limes, shaddocks, bergamot oranges, and several other varieties of the citrus family have been produced here from time immemorial, but the plantings made by the inhabitants consisted only of isolated trees and groups thereof, set out largely in a haphazard manner, without form or order, nearly always too close together, and during their whole existence were unattended, save during the time required to gather their production. Such a thing as a citrus industry was not known, even though the total production of the trees set out as described above was large and supplied fairly abundantly the requirements of the population.

With the close of the war of independence and the coming of the American occupation a change came over these conditions. Among those in the army of occupation were some who, in view of the existence of large and aged orange trees which for years, unattended and neglected, had produced bounteous crops of excellent fruit, and the abundance of wild citrus trees in the forests, were led to believe that there was a future for anyone who would settle here and set out groves. Still others, broader in their thoughts, and more inclined to earn their money from the labor of others, were able to see the rich returns that could be secured by those who would start real estate operations and induce northern residents to purchase from them for the purpose of planting citrus groves and reaping the harvest that could thus be made.

The result of these two lines of thought are apparent to-day in the many scattered groves formerly belonging altogether to Americans, though now a considerable number of them have passed to the control of natives, lying within a radius of 60 miles of Habana, especially to the west; and in the colonies of Americans established by the companies formed by the real estate operators.

The establishment of isolated groves by individual planters naturally would be made in that portion of the island with which the Americans were best acquainted. This, of course, was Habana, so that near it we find the groves of this character. But the real estate operator could make more money from the resale of cheap land

¹ By H. O. Neville in the Cuba Review, October, 1919.

than from that of the costlier acreage of the western part of the island. At the close of the war of independence lands were selling for a moderate price in the two eastern provinces, Camagüey and Oriente, this being also the case for the very sandy and poor lands in the extreme western part of Cuba. So here, naturally, the attention of the real estate men was centered, and the result has been the founding of the many colonies, such as La Gloria, San Lucía, La Atalaya, Riverside, and Canet, in Camagüey Province, and Bartle, Victoria de las Tunas, Omaha, Holguín Bayate, Cacocúm, and Paso Estancia, in Oriente Province; while to the west of Habana we find Heradura and Ocean Beach as types of the colonies formed by these people. In the central portion of the Island, colonizing of this nature was almost entirely lacking, this portion of Cuba being at that time pretty well developed by native farmers, and land prices being fairly high. Exceptions to this are the colonies of Itabo and Ceiba Mocha, both in Matanzas Province. To the south of Habana, the Isle of Pines deserves special mention, as here thousands of acres have been set out, almost entirely to grapefruit.

We have gone thus in detail into the American colonization of the island because with it is bound inseparably the establishment of the island's citrus industry as such. The people of the North, many of them at least, were tiring of the long cold winters and were attracted by the representations made by the land companies regarding Cuba's wonderful climate, the marvelous fertility of her soil, and the ease with which products native to the country could be grown—among these, of course, being citrus fruits—and of the profits to be derived from the planting and cultivation especially of these. The native trees which without care and attention had for years produced bountiful crops were regarded as an indication of what could be accomplished by modern cultivation and attention, and the profits to be derived from ventures of this nature were taken to be similar to those which are shown occasionally by the growers of these fruits in Florida and California. The fact that communication in many of the places where colonies were founded practically did not exist; that the distance from points of production to shipping point was, in many cases, great; that ocean transportation from the shipping port to the point of consumption, the United States, was, in many instances, either very intermittent and uncertain or entirely lacking, the difficulty and expense connected with waiting five or six years after planting the groves, till these came into profitable bearing—these were points which of course were not brought out and emphasized in the literature of the original promoters of these colonies, and did not appeal to the colonists when they first came; so they went to work and set out large acreages of citrus fruits. The individual American farmers near Habana did likewise, and the sight of this going on before the Cuban land owners and holders served to make them also come into line and set out considerable areas.



THE CITRUS INDUSTRY IN CUBA.

Upper picture: A young grapefruit tree, San Pedro, Isle of Pines. Center: A flourishing orange grove at Riverside Camaguey. Lower: Picking oranges at Santa Fé, Isle of Pines.

In the beginning of the establishment of citrus groves the thought of nearly every incipient grower was that this fruit would be sold in the United States, and therefore he sought those varieties which he believed would have the greatest acceptance there. In those days the grapefruit business had had a boom in Florida, and then received the almost death blow of the freezes of 1895 and 1896. The American public was learning what this fruit was, and was constantly calling for greater supplies. It was, therefore, only natural that the promoters of the land companies should direct the attention of their colonists to the probably large profits to be derived from the production of this fruit. So we find that a large percentage of these early plantings of the American colonists consisted of grapefruit trees. They, however, paid some attention to oranges, though this was largely with the idea of having a supply for home consumption. Lemons in moderate acreage were also tried out in several places, but they were found to require great care and much attention after picking in order to prepare them suitably for market.

Every new industry in any region must necessarily pass through its formative and experimental stage. During the first days of the planting of citrus fruits it was not uncommon to find in a 10-acre grove four or five varieties of grapefruit and six or eight of oranges. Experience and time have proved the foolishness of this lack of method, as it has been pretty thoroughly demonstrated that in order to have shipments of grapefruit of sufficient size to make the required volume for economy, both by rail and water, one or two varieties at most should be planted, while with oranges experience has shown that the home demand in Cuba is so great as to require practically the entire production, present and possible, of the island; so that consideration should be given only to those varieties surest in their productive capacity, most constant in their quality, and ripening at a period when they do not come into competition with the large mass of Cuba's native seedling fruits, which arrive on the market most abundantly from December to the end of March.

The production of grapefruit has proved to be a distinct success. To plant a grapefruit tree and be certain of production therefrom is one and the same thing. This class of fruit bears abundantly in Cuba, and the proper varieties yield a most excellent and satisfactory product. The home demand, however, is very small. Only a very few Cubans or Spaniards have learned to eat this fruit with relish, and usually the first taste is the last. The result is that all of this fruit must be shipped to a foreign market, and the only one available is that of the United States. Here we come into contact and competition with fruit from Florida and California—sections where each day sees the introduction of improvements in methods of cultivation, fertilization, and especially, of spraying. Thus the grapefruit grower has to go to heavy expense for spray materials and machinery for

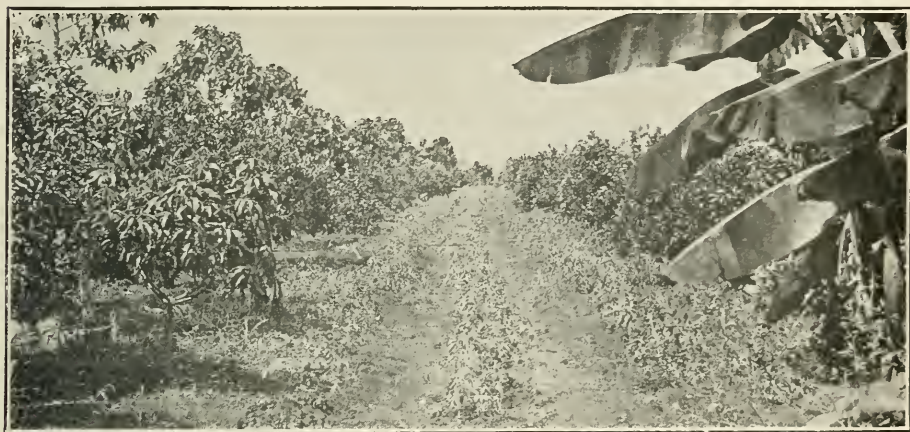


A GOOD EXAMPLE OF REBUDDING.

The great demand for sugar has caused the uprooting of many citrus groves to make way for the sugar cane. Some planters foresaw a shortage in oranges and converted their grapefruit into orange trees by rebudding.

their application to produce a fruit that is smooth skinned and attractive, in order to compete with the fruit of the United States; and after the greatest care on his part it often happens that weather conditions have been such as to offset his work. After production is effected the grapefruit must be taken to the packing house, thoroughly washed, dried, separated into the various sizes under which it is packed, each fruit wrapped with a tissue paper wrap, and then properly placed in the right order in boxes prepared for the purpose, which then must be nailed up, hoops put on and fastened, and branded with the name of the party who will receive it in the north. Shippers from the interior must make arrangements with some one at the ports for the forwarding of their fruit, and consular invoices, bills of lading, and other shipping papers required in order that the shipment may be properly effected, must be made out. Nor is this all. Very little of Cuba's grapefruit is exported at a price known to the growers when the shipment is made. By far the largest percentage goes forward to commission houses in the north, who sell it on a commission basis, receiving as their pay a certain percentage of what they can obtain for the fruit. As is naturally the case there is lacking the interest to obtain for the grower the last penny from such shipments; nor is there the incentive for that treatment of fruit arriving in bad condition which will bring to the owner the largest possible return; and the result is that in a great many cases the shipper receives, not a check in return for his product, but a bill for freight and expenses thereon. This, of course, is the dark side. The bright side is seen when it is known that in many cases a check for \$1,000 or more has been received for one carload consisting of less than 300 boxes of grapefruit. Many instances such as this could be cited, but by far the most general experience is that the returns are either very small, in very many cases not paying for the boxes, paper, cost of production and packing, or in many others, as we have already mentioned, resulting in a bill of expenses to the shipper.

In great contrast to the experiences of the grapefruit grower have been those of the producers of oranges. With the development accompanying the American occupation of Cuba and the practical certainty of stable Government conditions, every industry in Cuba prospered. The cultivation of tobacco very largely increased, its production under cheesecloth or other shade rapidly spreading. Some growers believed that the tobacco produced under partial shade was superior to and cost much less to produce than that given total shade, and in looking around for means of producing this partial shade the planting of orange trees appealed to many. The result of this was that considerable acreages of oranges were planted, especially in the partidos and semivuelta sections lying west of Habana, with the double idea of obtaining fruit from the trees and of securing shade under which the tobacco could be grown. Plantings of this character



ORANGE GROVES AND NURSERY.

Upper picture: Young citrus planted among coconut trees with corn growing between the rows, at La Gloria.
 Center: A citrus nursery at Consolación del Sur. Lower: A citrus grove at Bainoa. The ground between the trees has been utilized for tomato plants.

continued to be made until disastrous years came upon the tobacco industry; the burn of the wrapper produced under shade seemed to grow more and more defective, and finally a very large percentage of the lands planted to tobacco in this way were turned over to some other crop or allowed to run wild. Furthermore, with the increase in price of sugar in 1915 as the result of the World War, came such a furor of cane planting that in a great many cases orange trees and groves of other classes of fruit have been uprooted to make way for the planting of cane. The heavy losses received by many of the American planters of grapefruit who had set out with their grapefruit relatively small areas of oranges, disheartened them and caused them to abandon the groves of both character, and the result has been a gradual decrease in the acreage of oranges planted and in the quantity of fruits produced. Coincident with this has been the tremendous increase in prosperity in Cuba due to high sugar prices, the increase in population, especially of workmen during the sugar harvest, and the far greater purchasing power of all the people due to their better economic condition, and, consequently, a very much heavier demand for oranges—a fruit which is loved by every Cuban from the little child to the old gray-haired grandfather. This, of course, has brought prosperity and well-being to the homes of all those who were foresighted enough to plant oranges instead of grapefruit or who, seeing the trend of events, had converted their grapefruit trees into orange by rebudding. Especially fortunate were those who had been sufficiently close to market conditions to note the great scarcity of oranges in the summer time and the heavy demand for them, resulting in prices as high as \$60 per 1,000 being frequently paid by middlemen for oranges on the trees in the groves. In many cases the producer is not even obliged to cut and deliver the fruit, though many do this from choice.

These favorable conditions naturally point to further plantings of citrus fruits, especially of oranges, by far-sighted agriculturists, and, therefore, some suggestions regarding the localities in which plantings should be made, the character of the soil which should be used, the preparation thereof, the varieties which have given the best results, and the cultivation and general attention to the groves after planting will be in order.

In the first days of citrus planting, as we have already indicated, groves were set out very largely upon soils and in localities selected from the map without actual practical knowledge thereof. Experience has shown, however, that the location has a great influence upon the success of the planter. In the case of grapefruit only the possibility of obtaining labor and the reduction of transportation charges are to be considered, as this fruit must be exported; but in the case of oranges it has been the universal experience that plantations situated not very far distant from larger centers of consump-



A FOUR-YEAR-OLD GRAPEFRUIT TREE.

One has only to plant the grapefruit tree in Cuba to be certain of an abundant and early yield of the fruit.

tion meet with a competitive demand for their products which causes higher prices always to be received than are received for the fruit from those groves in isolated locations of more or less difficult access. Soil conditions being favorable, the location of a grove can be recommended wherever good-sized towns exist, the grove being located as near as possible to a main thoroughfare; or the grove may be planted in any locality which is in the midst of a large sugar producing area. As instances of such localities, we have the district to the west and south of Habana, in a region to which access can be had by a number of first-class macadam roads which allow the fruit to be brought to Habana, Guanajay, to Artemisa, and to a hundred smaller towns by either purchaser or, if he wishes thus to conduct his business, by the grove owner himself. Another instance of favorable locations is that of the groves near San Marcos to the south of Santo Domingo in Santa Clara Province, situated just on the outskirts of a district in which some 17 or more large sugar mills are located. The groves of Ceballos in the western portion of the Province of Camaguey are another instance of a good location. Progress here has brought this result about, for during the early days of production of these groves many difficulties were met in the profitable disposal of their product, but since the advance eastward of the sugar industry and the establishment and enlargement of the many mills now seen around Ciego de Avila, a change has taken place which has made these groves, once almost failures, very valuable properties.

The person, therefore, who intends planting a citrus grove should take time to examine various localities; should always endeavor to secure lands near a good means of communication, preferably a macadam road; should seek districts of considerable population; and, of course, should select that class of soil which is adapted to his needs. He should also, if possible (and the advisability of a water supply in sufficient quantity for irrigation is becoming more pronounced each year), be located near a good water supply.

Experience with citrus trees in Cuba indicates that they will grow on practically any kind of soil found in the island. Groves are planted and doing well on the poor sandy soils of western Cuba, on the deep yet worn-out red soils of central Cuba, and on the heavy black soils occurring in bodies throughout the island; but the prospective grove owner should consider not only that the tree will grow in nearly any kind of soil, but also the ease with which the cultivation of the grove can be done; and for this reason should select as light a soil as can be found in the location that he has chosen. The sandy soils of western Cuba are good and are very easily cultivated, though they require constant fertilization to secure the best result. This region is, however, unfortunately subject to cyclones, and these are very frequently a source of complete loss of the crop and of severe damage



PREPARING CITRUS FRUITS FOR MARKET.

Upper picture: Well-packed grapefruit, Isle of Pines. Center: Interior of homemade packing plant, Herradura.
Lower: Packing house at Shetland Grove, San Francisco Heights, Isle of Pines.

to the trees constituting the groves. The lighter red soils of central Cuba are to be recommended, as these are usually quite deep and permit the full extension of the orange roots; but these soils are usually very porous and subject to drought, and for the best results require an artificial water supply. They also require nearly as much fertilizer as do the lighter sandy soils of western Cuba. In central and eastern Cuba vast bodies of timber land formerly existed, and these were chosen by many of the first comers to plant their groves. The forest trees were cut down and burned, and the orange trees set out in holes dug among the stumps and cultivation was carried on almost entirely with the hoe or native "machete." Later on, when the stumps began to rot, these were pulled and burned, permitting cultivation with plows and teams. Nearly all of the lands thus employed were of the heavy clay varieties and have shown excellent productive capacity, but are sticky and hard to work, and are furthermore in regions where access is difficult and where the best commercial results can not be obtained, though the continued extension of Cuba's sugar interest toward the east may produce the same results in many of the localities, where large acreages of citrus groves are found, as have been produced at Ceballos above mentioned.

The preparation of the soil for the planting of a citrus grove admits of wide variation. In the early days of planting in the old cleared lands of the West in many instances furrows were plowed covering a space 5 or 6 feet wide, in the center of which holes were dug and the trees planted. Later on, as the trees grew older, the unplowed area between the rows was plowed until the whole area was under cultivation. This, of course, tended toward economy, but is not the best method. This would be, naturally, the deep plowing of the whole area before trees are planted and the cultivation thereafter of the whole field, using, of course, cover crops to keep down the weeds and to render necessary as few cultivations as possible. A system has come into considerable favor by which the whole area of the grove after the trees have reached considerable size is allowed to become covered with grass, and this is mowed at intervals and the cut grass is piled as a mulch underneath the trees. When fertilizing is necessary, the mulch is removed, the fertilizer scattered over the area under the trees, and lightly hoed in, after which the mulch is replaced. Excellent results have been secured in connection with irrigation with this system. In the eastern forest lands, of course, the great expense which would be entailed by the removal of the stumps and roots from the soil prevents this being done, and practically compels the digging of holes and the planting of trees in these, as indicated in the preceding paragraph.

The varieties of citrus fruits that have come into favor in Cuba as the result of the experience of years are small in number. Among grapefruit the Duncan, the Walters, and the Marsh Seedless have

given good accounts of themselves, producing abundantly fruit of good quality and of the sizes required by the northern market. Only the Marsh Seedless has a tendency at times to produce small fruit, but otherwise it is a very excellent variety and its lack of seeds recommends it highly. Among oranges we have, of course, indicated that varieties should be selected that mature either very early or very late. Among these are the Washington Navel, the Valencia Late, and Hart's Late. The Washington Navel becomes sweet before any variety, even preceding some of our earliest native seedlings. Great care, however, must be used in selecting the stock for planting, as so-called improved strains of this variety have proved absolutely worthless in Cuba, producing a large orange filled with fiber and entirely lacking in juice. Strains, however, of the original Washington Navel can be secured which have year after year produced the heaviest and juiciest of fruit here, and the product of these trees is universally sought by the consumer. The Valencia Late and Hart's Late begin maturing in March, but will hang on the tree without deterioration for two or three months, and, therefore, their sale can be delayed until that period when practically all our native citrus fruits are out of the market, thus commanding excellent prices. For a mid-season fruit coming into competition with the native product, but a very abundant and regular bearer, the Pineapple Orange can be recommended, as very favorable results have been secured with them. Our consuming public also appreciates the oranges of the kid-glove varieties, and to supply this demand the planting of the varieties King, Mandarin, and Tangerine is to be recommended. The Tangerine especially is very productive, and if given good attention and care will prove very profitable. If, however, the trees are neglected, the fruit deteriorates in size and quality. An orange which is very highly recommended in Florida as capable of hanging on the tree from one year to another, but not tried out here extensively yet, is the Lue Gim Gong, but if this proves an abundant and regular bearer it should prove a valuable addition to the varieties above mentioned.

We have already referred to the two different methods of cultivation and the permitting of grass to cover the area of the grove, and there remains only the necessity of indicating the advisability of irrigation. As is well known, Cuba has its rainy and dry seasons. The former occurs from May to October with a more or less dry period in late July and August, but usually from December to March very little rain falls. The fruit of our citrus groves comes to maturity during this period, and, of course, the blossoms for the next year's crop are put out and the young fruit sets on the trees during these months. The effect, therefore, of excessive drought upon the prospects for the coming year may be disastrous. There are only three groves that we know of in Cuba which are being irrigated, and in these

three we have never known a case of crop failure. Instead, bountiful production is the rule each season. Of course the owners of these groves are intelligent and realize that heavy fertilization must accompany irrigation, so that each year their trees are bountifully supplied with plant food, and the result of this practice and that of irrigating is that great success has been attained and heavy crops are gathered and sold at excellent prices each year. In two of these groves irrigation water is secured from wells, one of which supplies water from a depth of about 150 feet. In this grove only very moderate quantities of water are furnished the trees once or twice during the winters of prolonged drought, but the water is always furnished at such a time as to bring out the blossoms, and a second irrigation is given in time to prevent the young fruit from dropping.

The spraying of citrus trees here is necessary only to keep down those insect enemies which are injurious to the trees themselves. The character of the surface of the oranges eaten in Cuba influences only to a very slight extent their salability. A great many of the oranges are peeled by street venders, so that the skin of the orange is not seen by the purchaser, but even when purchases are made by parties for home consumption, the fact that the skin is more or less discolored is not taken into consideration. This, of course, is not the case with grapefruit, as has already been indicated.

Concerning the methods of sale of oranges little need be said. No difficulty whatever will be experienced in the disposal of his crop by the grower whose fruit matures in the proper period and who is well located, reasonably close to a good road or to railroad transportation. From the grove of moderate area situated close to a large town or city the fruit can be sold directly in box lots to special customers who will place orders for weekly or semiweekly delivery. A good business of this character has been built up by a few of our growers located near Habana. Once confidence in the character of the grower's product is established, a business is created that will never be lost.

In conclusion we can not refrain from again indicating the very favorable prospects which lie before the orange producer who uses proper judgment and the local information obtainable in the selection of the location in which to plant his grove, of the land upon which to plant it, of the varieties which he should set out, and of the proper methods of cultivation, fertilization, and irrigation. His success is absolutely assured, and the writer's knowledge of Cuba causes him to believe that for the man who is agriculturally inclined and who seeks a quiet living in a climate where extremes are rare, where great heat and cold are unknown, where almost every night, in the midst of summer, is cool enough to require some bed covering, the planting of citrus fruits in Cuba offers many inducements, and we believe that with the more settled conditions now prevailing after the close of the war, the planting of citrus groves will again be taken up by northerners, though this time on a firmer and more stable basis.

PAN AMERICAN NOTES

DEATH CLAIMS TWO GREAT STATESMEN.

ON September 24 last at the advanced age of 84 years, Ramon Barros Luco, ex-President of the Republic of Chile, passed away. He was a statesman who was loved and respected by his fellow citizens, and his death removes one of the greatest and most commanding figures of the political and social life of the nation, one who for 50 years was intimately connected with the development of that great and progressive Republic. As a citizen he was always in sympathy with the poor, and shortly before his death left the greater part of his estate to charitable institutions.

Ramon Barros Luco was born in Santiago in 1835, was educated at the National Institute and the University of Chile, graduating from the law department of the latter institution on September 26, 1858. He immediately entered public life, and in 1861 was elected deputy from the Department of Casablanca. From 1864 to 1872 he was official mayor (chief clerk) of the department of the interior, and during the latter year was appointed minister of Finance, a position which he held during the administration of Domingo Santa Maria. In 1889 he became minister of the interior. In 1891, as speaker of the house of deputies, he took an active part in the movement which terminated the government of President Balmaceda. During that same year he was reelected speaker of the house of deputies, and in 1894 was appointed minister of the interior. In the elections of the year just mentioned he was chosen senator from Tarapaca, and soon after taking his seat in that body was made president of the senate. During his long and busy career he was also consejero de estado (privy councillor), president of the Society for the Development of Industry, vice president of the charity board, and minister to France. He was the author of a number of books on law and political economy, and while a member of the house of deputies drafted many important laws relating to agricultural taxation and customs tariffs.

As a reward for his distinguished services congress presented him in 1891 with a library valued at 20,000 pesos, and conferred upon him the honors and privileges of vice admiral whenever he visited the Chilean squadron. In 1910 he was unanimously elected President of the Republic, took possession of his post on December 23 of that year, and performed the duties of his office in an efficient and satisfactory manner until the end of his term. His death is mourned by the people and Government of Chile, and the funeral obsequies

were marked by the highest honors that the Chilean Government accords to the greatest and most faithful servants of the nation.

On October 2 last Dr. Victorino de la Plaza, ex-President and one of the most noted statesmen and scientists of the Argentine Republic, died in Buenos Aires. Dr. Plaza was born at Salta on November 2, 1841. His preparatory schooling and bachelor's degree were obtained in the historic college of Uruguay, from which institution he entered the University of Buenos Aires, where he soon excelled because of his intellectual powers. That university conferred upon him the title of doctor of laws. Shortly after leaving the university he took up the study of philosophy in the National College and began the practice of law in the office of Vélez Sarfield, a learned jurist, whom he assisted in preparing the Argentine Civil Code, the fiftieth anniversary of which was celebrated a few months ago. He also collaborated with Florentino González on the jury law, and with Dr. José María Rosa on the law for the organization of the courts and on the Code of Civil Procedure.

In 1875 he was appointed solicitor of the department of the treasury, and later was temporarily in charge of the departments of justice, worship, and public instruction, and of war and marine. In 1878 he served as national comptroller of the Province of Corrientes. Shortly before the expiration of the term of President Avelaneda he was elected deputy to congress from the Province of Salta, and during the administration of Gen. Roca he filled successively the posts of minister of foreign relations and of finance. Soon thereafter he went to London, where he resided for many years engaged in study, and where he made a successful settlement of the Argentine public debt, thereby guaranteeing the credit of the Republic.

On his return to his native land in 1904 he again engaged actively in public life, and in 1908 was appointed minister of foreign relations. In November of the following year he was nominated as the national candidate for the vice presidency of the Republic, and was elected by a large majority. On the death of President Roque Saenz Peña, and during nearly the entire period of that administration, Victorino de la Plaza ably governed the country.

As a statesman and orator he occupied a high place among his colleagues of the period in which he labored. His works on Argentine international politics, economic and constitutional questions, and treaties on commerce and agrarian subjects are of merited worth. He was the most enthusiastic promoter of the Argentine agrarian, the national defense, and the commercial league of the Province of Buenos Aires. In 1910, as minister of foreign relations, he opened the sessions of the Fourth International Pan American Conference with a notable address, abounding in high ideals and full of the spirit of genuine Americanism.



HON. SAMUEL ABBOT MAGINNIS.

Envoy Extraordinary and Minister Plenipotentiary of the United States to Bolivia.

Mr. Samuel Abbot Maginnis was born at Zanesville, Ohio, on October 23, 1885. He received his collegiate education at St. Mary's College, Kansas, and subsequently went to Salt Lake City, Utah, where he was admitted to the bar in 1910. His unusual talents soon earned for him an enviable place in the ranks of his profession, and his natural inclination to politics made him one of the political leaders of the State at an age when most men are just beginning to make a reputation. On September 23, 1919, he was given the appointment of envoy extraordinary and minister plenipotentiary of the United States to the Republic of Bolivia, and is now discharging the duties of that post at La Paz.



SPECIAL GUATEMALAN MISSION IN WASHINGTON.

Members of the special mission from Guatemala, sent by their Government to express to President Wilson the thanks of their nation for his course during the war, who were received and entertained by Secretary of State Lansing, representing the President and the American Government. Left to right: Sonoros José Sorrano Munoz, judiciary; Maximo Soto Hall, executive; and Manuel M. Giron, legislative.

PAN AMERICA IN THE MAGAZINES

Houdon and the statue of Washington is the title of an article in a recent number of *France-Etats-Unis* which gives an interesting account of the story of Washington's statue by the celebrated French sculptor, Jean Antoine Houdon, now in the capital at Richmond, Va. The writer, M. André Michel, who is himself an eminent specialist in the history of art, begins by outlining the preponderant share taken by French artists in the early relations between France and the young American Republic, and relates a few historical and heretofore unpublished details of the sojourn in Paris of Benjamin Franklin and Paul Jones, both of whom had their busts made by Houdon. Then M. Michel tells of the lengthy negotiations which ultimately brought the famous sculptor to Mount Vernon, where, having been commissioned by the State of Virginia to make a statue of George Washington, he came to take, according to his own words, "the true figure of his model by actual inspection and mensuration."

The following is a free translation of the main part of this very interesting article:

The Legislative Assembly of Virginia having decided, on June 22, 1784, to erect in the State capitol a statue of George Washington "as a monument of gratitude and affection," said the resolution, to the hero whose merits and virtues have made his name dear to his fellow countrymen," George Harrison, governor of the State, commissioned a well-known painter of Philadelphia, Charles Wilson Peale, to make a full-size portrait in oils of the great general, requesting him further to forward the painting to Jefferson, then in Paris, "so that the sculptor chosen to undertake the work may be able, with this as a model, to make the statue in the most perfect manner." At the same time Harrison wrote to Jefferson asking him to select for the task the best of European masters, "the wish of the Virginia Congress being that the statue be of the best marble and work possible."

Jefferson, who had already met Houdon, and had been able to appreciate his talent, did not hesitate in his choice. On the 10th of December, 1784, he informed Washington himself that the Frenchman Jean Antoine Houdon was unquestionably the foremost sculptor in the world, and therefore appeared to be the best qualified to carry out the plan of the Virginia Legislature. He went on to say, however, that the French artist thought that it would be quite unsatisfactory to use only the painting as a model, but added that Houdon was so enthusiastic about the project that he had offered to go to America in order to be able to make at least the bust from life.

The only one to be astonished at the request of the French sculptor was the Virginia governor, who insisted that the Peale painting, with

its good likeness, was a document sufficiently accurate to enable the sculptor to make the statue; but such was the artistic probity of Houdon that he only consented to accept the order when assured that he would be enabled to come to Virginia, and would be given every facility to approach Washington and have with him as many sittings as he might deem necessary.

The negotiations were diligently conducted, and shortly afterwards a contract was signed whereby Houdon was to receive, "as a remuneration for his work and the time lost in the journey to America," a sum of £20,000, in addition to which all his traveling expenses were to be paid, as well as those of the two aides he was allowed to take with him. It was further agreed that, should the French artist die abroad, his family should receive an indemnity of £10,000. This last condition having met with some objections on the part of the representative of Virginia, Jefferson personally undertook to carry out, if need be, this part of the agreement.

Everything being thus settled, on July 20, 1785, Houdon left for Havre, where he was met by his friend and traveling companion, Benjamin Franklin. After an uneventful but slow crossing of the atlantic, he arrived in Philadelphia September 14. Two days later Franklin, in a letter to Washington at Mount Vernon, announced the arrival of Houdon, and the general replied directly to the artist saying: "I wish the object of your long journey were more worthy of one who is represented to me as the greatest sculptor of Europe. You are welcome to my retreat."

On October 2, Houdon arrived at Mount Vernon. This historical event has been entered in Washington's diary as follows:

We had scarcely gone to bed, when towards 11 p. m., Monsieur Houdon, sent from Paris by Franklin and Jefferson, arrived by water, and was introduced to us by Monsieur Perin, a French gentleman.

Houdon was ready to start the work without loss of time, and the sittings began on the day after his arrival. An entry in Washington's diary dated Friday, October 7, states that he "sat again for his bust" that day. Subsequent entries in the precious diary show that Washington displayed a great interest in Houdon's work, and a few lines inform us that Madison would usually arrive at the mansion in time to be present at the daily sitting. Under date of the 25th we read that "Monsieur Houdon, having completed the work for which he came to this country, asked for a boat to take him back to Philadelphia."

The fact that Houdon's masterpiece, prepared during these three weeks of sittings, was finished only in 1788 is explained by the numerous discussions to which the embarrassing questions of attitude and costume gave rise. Was the great American to be represented on horseback or standing? And should the Roman toga, so much in



THE WASHINGTON STATUE AT VERSAILLES.

This work of art is a reproduction in bronze of the celebrated statue by Houdon. It is a gift of the State of Virginia to France and was inaugurated with fitting ceremonies on August 18, 1910.

favor in the artistic circles of the period, be preferred to modern clothes? Finally Washington's advice prevailed, and it was decided that he would be represented standing, holding a cane and wearing the simple costume of a country gentleman of the eighteenth century; top boots, breeches, and riding coat opening on a large lace tie. Notwithstanding all this delay the statue was ready long before the completion of the capitol of Virginia, in the rotunda of which it was to be placed, and it was not sent to Richmond until the spring of 1796.

A bronze replica of this monument, which is considered one of the best of Houdon's works, was presented to France in 1910 by a group of citizens of the State of Virginia, and is now in the Palace of Versailles, the French temple to glory.

Dominican Republic prospers is the title of an excellent account of the natural resources of that Republic which appeared in the October number of the *World's Markets*, R. G. Dun & Co.'s publication. After a brief introductory paragraph the writer, a special correspondent of Dun & Co., presents the following graphic story:

Trade is assuming constantly growing importance in the life of the Republic, and as transportation facilities are improved, agricultural methods modernized, and education disseminated among the native population, it becomes increasingly plain that a field is presented that no enterprising American business man can afford to overlook. The bountiful hand of nature in the Tropics is responsible for the dark, rich earth, capable of supporting two or three heavy crops a year; but to bring these fertile fields to the peak of their productivity, man-made mechanical appliances are needed, and are already being supplied in increasing quantities. New sugar estates are being opened up constantly, and the erection of mills and other necessary adjuncts has proceeded, despite the cutting down of imports resulting from war-time shipping conditions. Cement and structural steel are especially in demand in this connection.

Public works are being undertaken vigorously by the Government. Substantial and well-built roads now traverse the island in important districts, and it is planned soon to link up the principal cities with a network of serviceable thoroughfares.

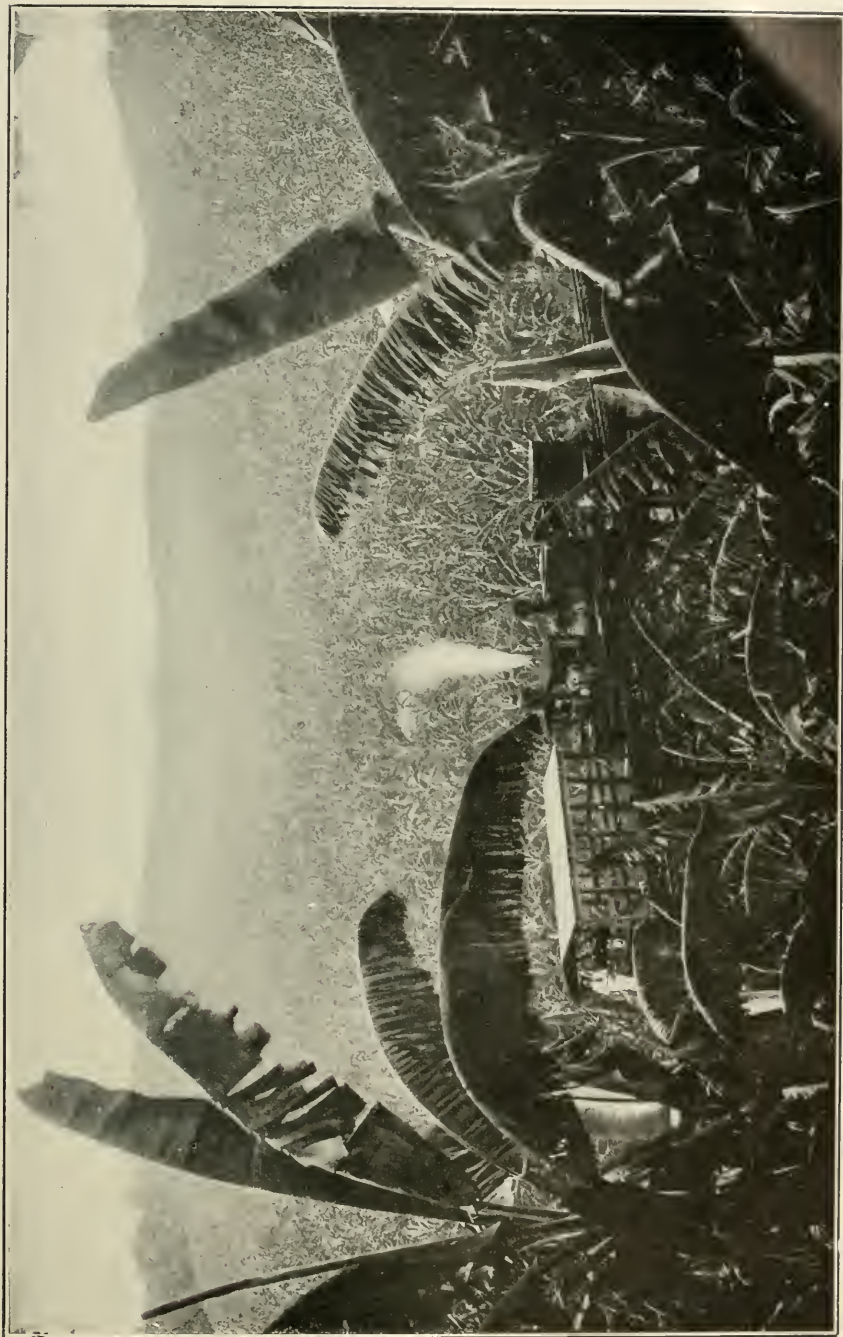
The Departamento de Fomento y Agricultura continues its campaign for the improvement of agricultural conditions and methods in the country. A capable and efficient supervisor of agriculture is employed, and an experimental station conducted under his direction vividly demonstrates the potential value of the products of the soil. Substations have been established, and competent men have been put in charge, whose duty it is to advise and direct the people in their agricultural pursuits.

The extent of the whole island, including Haiti, is approximately 28,000 miles, or about that of Ireland. Haiti occupies the western end, about 10,000 square miles, or one-third of the total area, the Republic of Santo Domingo comprising the remainder. Near its shores are a few tropical islets.

Among its important cities must be mentioned San Pedro de Macoris, a place of 15,000 people, and the principal port on the south side of the island. It is in the midst of a rapidly growing sugar-producing district, which is making use of modern methods and up-to-date machinery. Much of the sugar grown in this region is exported.

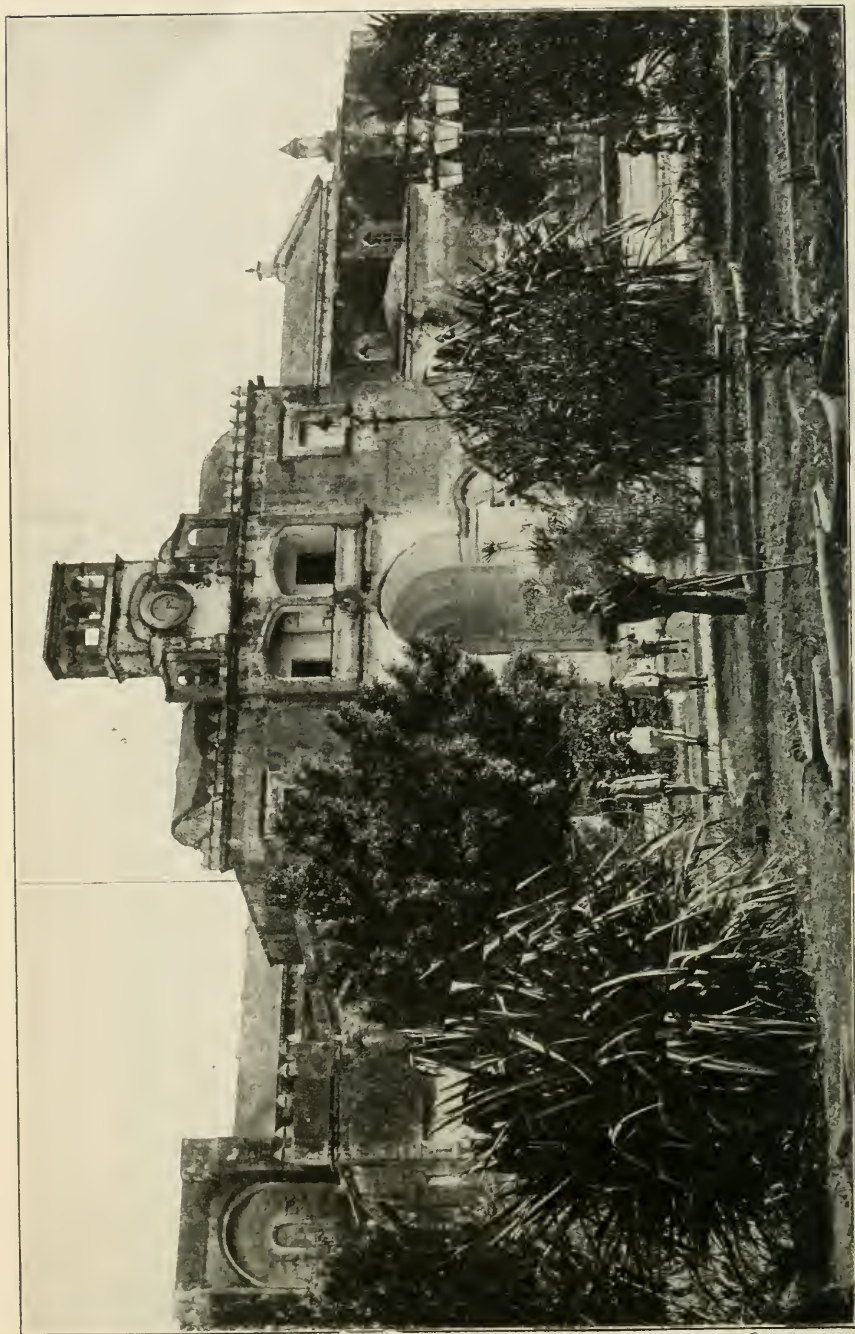
The capital, Santo Domingo, is being improved wonderfully, and electric lights, comfortable hotels, and a busy commercial life are already in evidence. The population is about 25,000.

The most active port on the whole island is Puerta Plata, on the northern coast, not far from Columbus's old settlement of Isabella. The principal exporting is done at this point.



A BANANA PLANTATION IN THE DOMINICAN REPUBLIC.

Although rich in all tropical fruits which grow wild throughout the Republic, bananas are the only fruit exported in any quantities. This has been one of the most important agricultural industries of the land.



THE OLD CATHEDRAL AT SANTO DOMINGO.

Begun in 1514 and completed in 1540, this ancient cathedral is one of the few old buildings not in ruins or completely demolished and is rich in historic treasures, containing works of art ascribed to Velasquez and Murillo.

Mountain ranges traverse the country from end to end. These diversify the climate and soil and are the sources of many useful rivers flowing in all directions. These great ranges break the violent winds from the sea, temper the glowing sun, and permit the cultivation of a great variety of plants producing valuable fruits. At the head of one of the valleys formed by the mountain ranges is Santiago, which has some importance as the center of what mining development exists, and of the valley's agriculture. The land is rich in minerals and these will undoubtedly be sought more and more as the country progresses.

Rich land of a quality which costs between \$300 and \$400 per acre in Cuba and Porto Rico can be bought for from \$3 to \$40. It is believed that prices in the Dominican Republic will tend to approximate those on the more highly developed islands within 10 years, if not sooner. When considering the prices it must be remembered that no frost or snow exists to hinder outdoor life all the year round, and the soil in many instances bears two or three crops a year. Labor is cheap and abundant, wages running from 50 cents to \$1 a day. In some places land can be had for the expense of fencing it and by paying a small amount to the local commons.

Without irrigation, without fertilization of the soil, with a minimum of effort, the Dominicans have reaped for years the most bountiful of crops, says Los Antillas, the bulletin of the recently inaugurated Chamber of Commerce, Agriculture, and Industry, at Santiago. The Dominicans consider this as a matter of course, and in spite of the fact that practically everything is accomplished by nature herself, only one-tenth of the available agricultural land, as rich as any in the world, is being cultivated. Nevertheless, on this comparatively small area, and regardless of the primitive farming methods that have been employed for decades, the farmers produced in 1916 over 4,630,000 pounds of cacao, over 3,800,000 pounds of coffee, and more than 120,000 tons of sugar.

What results could not be obtained by modern agricultural methods, backed by foreign capital and enterprise? The opportunity is evident, and there is no doubt that this is the moment to take advantage of it.

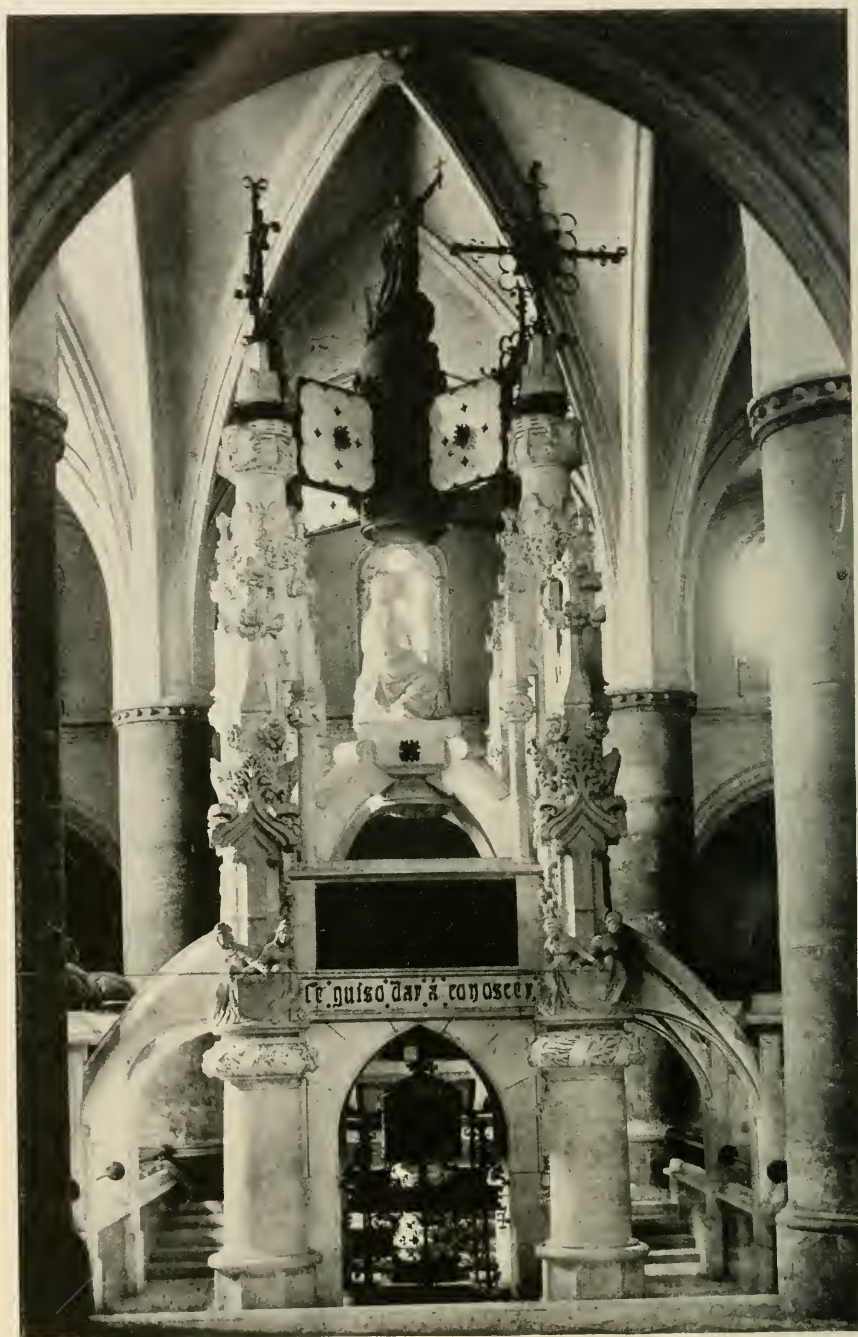
Sometime ago the World's Work sent a correspondent to the Dominican Republic to get first-hand information. An excerpt from his excellent report follows:

" * * * The loamy earth, as black as the raven's wing, restless in the pregnancy of tropical warmth, bears and bears again. Forests of the costliest woods, fruits, and even coffee and cacao, grow wild and unnoticed. Hardly a hillside is barren. There are no ferocious beasts, no poisonous snakes. The climate is never so unendurable as a New York summer. The locally famous Cibao region is described as richer than the mud of the Nile. * * * "

Besides the products already mentioned, there are many almost of equal importance. Castor beans grow wild everywhere, but they are now being cultivated, as a strong demand for castor oil has arisen following the discovery that it is the best lubricant for aeroplanes. Corn, rice, potatoes, beans, onions, peanuts, soya beans, cotton, coconuts, bananas, pineapples, oranges, lemons, alligator pears, indigo, mangoes, tamarinds, guavas, and many varieties of rare medicinal plants are cultivated, and not a few are ready for export development.

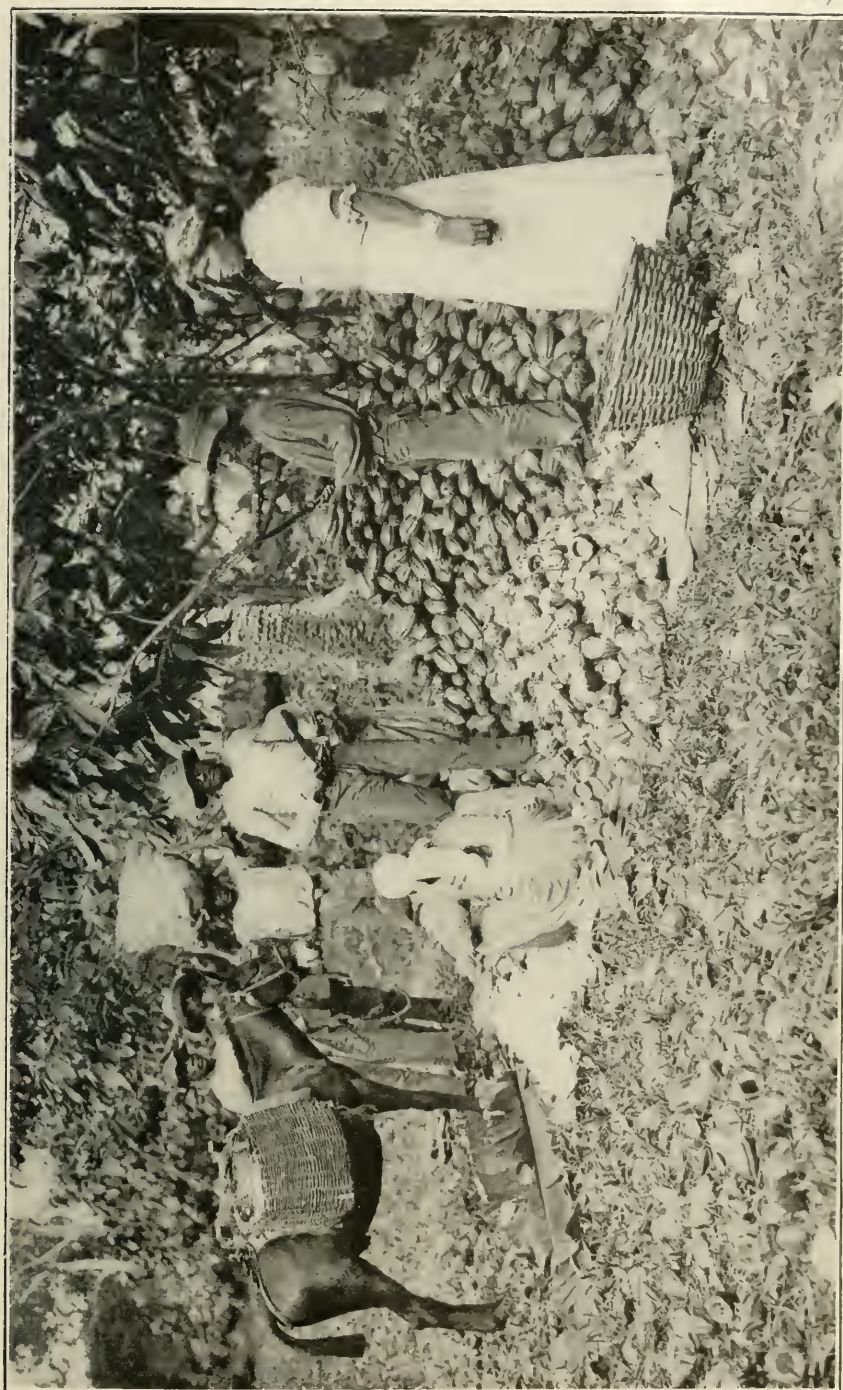
Several thousand square miles of the interior are covered with virgin pine forests. The trees run from 12 to 36 inches in diameter. The pine is practically uncut, and only a few small and primitive sawmills are in operation. They fall far short of satisfying the local demand—a rapidly growing one—and the anomalous situation exists of importations of pine from the United States being necessary. By using modern methods and proper sized sawmills and by getting the timber out of the most inaccessible places with aerial ropeways a lucrative business could be built up, a boon to the island itself and all its less fortunate neighbors.

On the lower lands, especially on the great plains of "La Vega Real," are found immense forests of all kinds of valuable woods, besides unlimited quantities of soft



THE TOMB OF CHRISTOPHER COLUMBUS.

In the ancient cathedral in Santo Domingo this monument has been erected; and in spite of the claims of Spain that Christopher Columbus is buried there, the Dominican Republic designates this as the burial place of the explorer.



ON A CACAO PLANTATION.

1. Cacao valued at \$3,958,669 was exported from the Dominican Republic in 1916, this industry standing second only to the export of sugar. Here the laborers are shown engaged in "breaking" or "shelling" the beans, preparatory to drying them.

woods, which could be used for paper pulp. Many thousands of square miles are thickly covered with these forests. The hardwoods include mahogany, considered to be of the best quality existing; satinwood, *lignum-vitæ*, logwood, fustic, and countless others more or less known, besides many of medicinal value.

The cutting and sale of mahogany offers a particularly attractive business proposition. The demand is very strong and the prices are high enough to insure satisfactory profits, if the business is well conducted.

The trees can be hauled by ox carts to the Yaque River and floated to Monte Cristi, or they can be carried to the port by motor or common trucks. The oxen can be bought in Santo Domingo, and the carts also, or in New York. The roads, contrary to the general belief, are not at all bad, and all over the island new ones are being made as fast as possible.

Small-sized automobiles are used all over the island, and heavy trucks are at present in use by the military government. Concessions have recently been granted for a railroad connecting the port of Monte Cristi with the interior. It will greatly raise the value of the large wooded district, as well as of the mining and agricultural land.

Exports from the Dominican Republic include at present sugar and cacao (these two being by far the most important), tobacco leaf, coffee, beeswax, coconuts, honey, copra, cotton, hides, molasses, bananas, and goatskins.

Imports which find a ready market on the island include general merchandise, dried fish, cheese, butter, beer, soap, chinaware, tools, agricultural implements, and shoes.

Certainly not the least of the opportunities for development in the Dominican Republic are those of growing and refining on a large scale products which yield oils and fats, such as peanuts, castor beans, coconuts, and soya beans.

Also waiting for commercial enterprise are the vast mineral resources of the island. The Great Central Cordilleras, a chain of mountains crossing from Cap Haitien to Cap Engano, are exceedingly rich in copper, silver, gold, and manganese. Assays of the copper ore in New York showed from 4 to 24 per cent of pure metal. A conservative and careful sampling of the large deposits investigated by the writer gave an average of 6 per cent, as compared with the average yield in the United States of about 1 per cent. The prospecting has been done under so many difficulties that it is impossible to estimate the amount of ore available.

Besides copper, gold and even platinum are found in various sections. The deposits are in the most inaccessible regions of the island, and probably can not, for some time at least, be mined by machinery; but that they are very rich may be judged from the fact that the Spaniards worked numerous gold and silver mines with the primitive methods that could only be applied to ore yielding a high percentage of metal. One of the largest nuggets of gold found prior to 1842 came from Santo Domingo. It was found in 1502, and weighed 200 ounces. The writer has authentic information about an old mine, once worked by the Spaniards, but long since fallen into a state of disrepair, and unworked since it was abandoned by them. Samples weighing several hundred pounds were assayed by Prof. Meiner, the German mineralogist, and were found to yield 10 ounces of gold, 30 ounces of silver, and 40 per cent of copper to the ton—an astonishing assay, indeed.

Recently a woman in Jicome found a piece of gold weighing over 16 ounces, and nuggets with a local value of from \$10 to \$50 are not uncommon. The women sell their gleanings of gold in the nearest village, getting 30 cents a "tomin," or at the rate of about \$12 an ounce. The nuggets are remarkably pure, and no doubt considerable quantities could be bought up in the course of a tour about the island, getting in touch with the natives themselves and arranging for future connections.

Enough has been said in this brief outline to show that the possibilities of the Dominican Republic are enormous. The one prime advantage which increases the importance of the others manifold, it should be again emphasized, is the wonderful quality



TROPICAL GROWTH IN THE DOMINICAN REPUBLIC.

The island is remarkably fertile; vegetation of all kinds flourishes; raspberries and strawberries, lemons, oranges, grow wild, and tropical plants and flowers are found in riotous profusion. The fine specimens of cacti shown here are good examples of the soil's production.

of the climate. Here the man from the temperate zone is unhampered by the enervating effects of most tropical lands. The heat is never intolerable, and cold weather is unknown. Mosquitoes are seldom found away from the lower coast regions, and the dreaded fever of moist and torrid climates is virtually nonexistent.

The Economist (London) under date of October 4, 1919, has the following to say concerning financial developments in Peru:

As a result of the more settled condition of affairs in Peru there is already being manifested a greater disposition to introduce more foreign capital, and several enterprises, with programs of fairly large scope, are being organized with the full approval, and even assistance of, the Government. Señor Don Augusto B. Leguia is carrying out his pledge to encourage foreign enterprise of a legitimate nature, by which may be understood undertakings that, while yielding a sufficient profit to those who invest their money in their successful conduct, still leave no burden upon the State nor rob the natives of any of their proper share of the benefits accruing. Lima is again becoming active, and late reports from the Peruvian capital tend to show that there has been an almost complete restoration of public confidence. Some little time previous to recent political changes there were listed on the Lima Bourse 59 securities of a par value of 12,933,201 Peruvian pounds. These comprised bonds and cedulas of a par value of 5,490,285 Peruvian pounds; bank stocks, national tax-collecting companies, insurance offices, and agricultural societies of a par value of 5,275,000 Peruvian pounds; and shares of mining, manufacturing, steamship, public utility, and other companies of a par value of 2,167,916 Peruvian pounds. Of the 20 bonds and cedulas listed (exclusive of internal obligations of the Republic of Peru), 6 bear an interest of from $5\frac{1}{2}$ to 7 per cent, 13 of 8 per cent, and 1 at 9 per cent. In all cases the securities were of local origin, and represented little or no foreign investment. Of some 36 enterprises, all of Peruvian origin, no fewer than 29 are in receipt of regular dividends, and have suffered very little, if any, interruption. One British enterprise, the Backus & Johnson Brewing Co., has, however, been in arrears for some years, not alone upon its ordinary shares, but upon its 7 per cent income bonds. During 1916 the highest dividend paid by any of the institutions, which that year were generally very prosperous, was 40 per cent, this being the distribution made by the Compañía Internacional de Seguros del Peru, the shares of which, bearing a face value of 100 Peruvian pounds, are now around about 570 Peruvian pounds. It is very rarely, however, that any of the shares come upon the market. Another enterprise of the same character—that is to say, an insurance concern—is the Compañía de Seguros Rimac, upon the shares of which 30 per cent was paid in 1918, the shares now being quoted around about 550 Peruvian pounds, without any of them coming on the market. On the other hand, there is a wide distribution of, and a large amount of dealing in, the shares of the Compañía Recaudadora de Impuestos (the National Tax Collecting Co.), capitalized at 500,000 Peruvian pounds, the £p.10 shares (of which 9 Peruvian pounds is paid up), standing a little under par. All of the Peruvian banks deal in shares upon their own or their clients' behalf, the commission charged being very reasonable and in some cases quite nominal.

In discussing conditions in Paraguay the Economist in the same edition says:

The cattle industry of the Republic is making remarkable headway. In 1877 there were not more than 200,000 horned beasts in the country; the census of 1915 shows that there were then 5,249,013 cattle, 600,000 sheep, 478,000 horses, 35,000 mules and asses, 61,000 hogs, and 87,000 goats roaming the prairies. Since then, however, there have been considerable additions to the number of horned beasts, and it is probably safe to place their population at little under 7,000,000. In fact Paraguay ranks already sixth in the great cattle-raising countries of the world, the United States coming first,

with 56,592,000 head, equal to 390 per 1,000 inhabitants; Brazil second, with 30,705,000 head, equal to 2,376 per 1,000 population; Argentina third, with 29,120,000 head, equal to 3,882 per 1,000 of the population; Australia fourth, with 11,819,000 head, equal to 2,448 per 1,000 population; Uruguay fifth, with 8,192,602 head, equal to 6,518 per 1,000 population; and Paraguay, 5,249,043, equal to 5,249 of cattle per 1,000 of the population. Thus, with the exception of the neighboring State of Uruguay, Paraguay can claim to be richest of all countries in cattle in proportion to population. This wealth is increasing day by day, and by the end of the year this South American Republic may become comparatively the richest pastoral country in the world.

AGRICULTURE, INDUSTRY AND COMMERCE

ARGENTINA.

The Department of Public Works of the Argentine Government has authorized the Bureau of Navigation to expend 250,000 pesos in the construction of a DREDGE of the Freiling type for use in deepening the port of Buenos Aires.

Official data republished from newspaper reports show that ARGENTINE-PARAGUAY COMMERCE in 1918 aggregated a value of 12,400,000 gold pesos, as compared with 1,826,000 gold pesos in 1910, 6,600,000 gold pesos in 1916, and 8,600,000 gold pesos in 1917. The total commerce of Paraguay in 1918 was 22,500,000 Paraguayan gold pesos, so that the Argentine-Paraguay commerce represents more than one-half of this total. In 1918 Paraguay exported products to the value of 11,400,000 gold pesos, and imported merchandise valued at 7,380,000 gold pesos. The principal exports from Paraguay to Argentina during the period referred to were timber, Paraguayan tea, tobacco, oranges, and cattle on the hoof, the latter item in 1918 numbering 41,800 head. The main exports from Argentina to Paraguay were wheat, flour, horses, cattle, wine, salt, sacks, and mules.

From January 1 to August 15 of the present year the EXPORTS OF BEEF to France were 1,200,000 quarters, or about the quantity shipped to England during the same period. The English markets prefer fat meats; the French prefer lean meats. Up to the date referred to France has imported from Argentina 140,000 carcasses of frozen mutton, and has placed orders for large quantities of this meat. France also imports a considerable quantity of prepared food or soup known as "puchero." During the war 50,000 tins of this product were purchased by the French Government for the use of its troops at the front.

Dr. Julio Peña, an able financier and ranch owner, has been chosen president of the BOARD OF TRADE of Buenos Aires.

BRAZIL.

According to official figures on the COMMERCE WITH ARGENTINA the Brazilian exports to that country which for 1917 amounted to 106,725,413 milreis (milreis = \$0.275), in 1918 increased to 172,752,870 milreis; and imports of Argentine products, which for 1917 amounted to 79,515,000 milreis, in 1918 increased to 187,898,850 milreis. During the first seven months of the present year the exports amounted to 32,281,000 milreis and the imports were 79,515,000 milreis. Brazil exports to Argentina tobacco, coffee, yerba mate, bananas, chestnuts, etc.; and imports wheat, flour, corn, and other products.

Early in September the CLIPPER BRAZIL was launched at the shipyards of the Isla de las Cobras. This is one of the new ships in course of construction for the Nacional Lloyd, provided for under the administration of Dr. Wenceslao Braz. The other vessel, *Italia*, will be launched at an early date. Both vessels are four-master clippers and fitted with three cranes for loading and unloading. The Nacional Lloyd Co. was organized in 1916 during the war.

THE COMPANHIA SANTENSE DE NAVEGAÇÃO, with a subscribed capital of 400 contos (conto = \$275), has lately been established in the city of Santos. The business of the company will be to run river and ocean-going boats between this city and other ports of the State of São Paulo. It is the purpose of the new company to take over the old Porchat River Navigation Co. and to develop the service.

During 1918 the Estrada de Ferro Central do Brasil carried 38,405 tons of MANGANESE ORE consigned to Europe and the United States.

In Rio de Janeiro a new company has been organized under the name COMPANHIA BRASILEIRA DIAMANTÍFERA to work the diamond mines in the district of Diamantina of the State of Minas.

A firm in Rio Grande do Sul has started a BUTTON FACTORY, using shells from the Guahyba River, of that State.

The SUGAR EXPORT for the first three months of the present year through all the Brazilian ports amounted to 14,322,246 kilos, worth 10,958 contos (conto = \$275).

THE CHINAWARE INDUSTRY has developed considerably in Brazil; there are already many factories whose products are of good quality. A NEW FACTORY is to be built in the State of Rio Grande do Sul, which will be one of the largest yet established in the Republic.

RUBBER EXPORTED through the port of Belem do Pará during the first six months of the present year amounted to 10,732,195 kilos, of which 7,299,841 kilos were consigned to New York, 2,294,759 to Liverpool, 1,097,406 to Havre, 32,000 to Lisbon, and 8,189 to other Brazilian ports.

To increase and cement cordial commercial relations between the United States and Brazil, the Chamber of Commerce of the United States and Commercial Association of Rio de Janeiro, with full authorization, have adopted a CONVENTION OF COMMERCIAL ARBITRATION, according to whose rulings they will suggest the insertion in sale or purchase contracts, of the following clause: "Transactions of this contract, in the event of difficulties, are subject to the ruling of the convention of arbitration, signed by the Chamber of Commerce of the United States and the Commercial Association of Rio de Janeiro." The execution of this convention will be entrusted to two arbitration committees, vested with full powers and chosen by the signatories. They will be composed of 10 members each, five to be chosen by the United States Chamber of Commerce with the approval of the Commercial Association of Rio de Janeiro, and vice versa. The length of the term of these committees will be three years. Other clauses of the convention provide for the selection of the arbiters, rules of arbitration, fixing of the time limit for carrying out the findings of the arbiters, controversies, etc.

According to newspaper notices, English stockmen are contemplating the development of large haciendas in Brazil for the ACCLIMATION, BREEDING, AND SALE OF THOROUGHBRED LIVE STOCK, and have been making plans for this purpose with the Brazilian commercial delegation which went recently to England.

THE BRAZILIAN EXPORTS for the first six months of the present year amounted to 1,085,216 contos, as against 504,201 contos for a like period in 1918.

According to figures published by the United States Department of Commerce, Brazil imported \$8,000,000 worth of automobiles and motor parts during the fiscal year ending June 30, 1919. This is an increase of 35 per cent over the value of 1918 shipments, though the number of machines was 3 per cent less than last year.

The Brazilian press states that the Western Union Telegraph Co. of the United States and the Western Telegraph Co. of England, have combined in a plan for DIRECT CABLE SERVICE between the United States and Brazil, whence the messages will be distributed all along the coast of South America. Some 3,200 miles of new cable will be laid between Miami, Fla., and Belem, Brazil, by way of Barbados. The new cable will join the Western Union at Miami.

CHILE.

A report to the Chilean Government by the consul general of Chile in England shows that Great Britain imported from Chile in 1913, merchandise to the value of £5,359,335, and that in 1917 this commerce had grown to £13,222,619. The exports from England to

Chile which, however, in 1913, amounted to £6,369,322 decreased in 1917 to £4,734,201.

The German NITRATE Co., is preparing to renew work in two of its plants in the Canton of Taltal, as well as at other places in that district.

At a meeting of agriculturists recently held in the University of Chile the question of forming a new agricultural society under the name of AGRARIAN UNION was discussed.

Press reports state that the Argentine Railway has submitted a plan to the executive power under which authority is requested for a joint administration of the CHILEAN TRANSANDEAN RAILWAY in conformity with the bases agreed upon by the board of directors of both companies in London.

At the suggestion of the members of the superior board of HOUSES FOR WORKMEN conferences were held in the University of Chile from September 28 to 30, 1919, for the purpose of discussing measures tending to secure more favorable conditions for the betterment of Chilean home life. The proceedings of the conferences are to be published in pamphlet form.

The members of the NITRATE Producers' Association, which met in Santiago on October 3 last, report that the sale of nitrate since the organization was formed to October 2, 1919, aggregated 18,688,000 quintals, and that the monthly delivery from October, 1919, to March, 1920, is to be 750,000 tons.

COLOMBIA.

According to official data value of the FOREIGN COMMERCE of Colombia in 1918 rose to \$59,762,562, consisting of exports, \$37,728,559, and imports, \$22,034,003, or an excess of exports over imports of \$15,694,556. The treasury department estimates that the exports in 1919 will aggregate about \$60,000,000, due largely to increased exports of coffee, hides, platinum, and other products. The coffee crop for the present year is estimated at 185,900,000 pounds. The price of coffee in New York rose in June last from 14 to 31 cents per pound.

Press reports state that representatives of a New York banking syndicate have unexpectedly encountered the rich vein of the El Chivor EMERALD MINE which was lost about a century ago. This mine is about 100 miles from Bogota, and was formerly worked by the natives and later by French miners. The emeralds extracted are said to be of great purity, beauty, and value.

A recent municipal decree authorizes Simon Hurtado to furnish GAS, either natural or artificial, for lighting the national capital. The concession, which is for 50 years, also provides for supplying heat and electric power to the inhabitants of Bogota.

The Cundinamarca FLUVIAL TRANSPORTATION CO. has been organized in Bogota with a capital of \$626,000. It proposes to operate first-class steamboats on the Upper and Lower Magdalena River, as well as auto trucks over the road from Arrancaplumas to Caracoli.

The Colombian AERIAL NAVIGATION CO. has been organized in Medellin, with a capital of \$500,000, with the object of establishing an airplane service between Medellin and Barranquilla and Medellin and Bogota. The journey from Barranquilla to Medellin is to be made in five hours, and from Medellin to Bogota in one and one-half hours.

The Tropical Steamship Corporation of New York has established a rapid WEEKLY STEAMSHIP SERVICE between New York City and Colombian ports, using steamers of 4,000 tons burden.

An executive decree of September 25 provides for the appointment of a board of directors resident in Bogota, and an administrative board with headquarters in Cali, with powers to administer, construct, and operate the PACIFIC AND TOLIMA RAILWAYS.

CUBA.

According to figures compiled by the treasury department's statistical section THE FOREIGN COMMERCE OF THE FISCAL YEAR 1918-19 amounted to 794,242,578 pesos (Cuban peso equals \$1). Of this sum the importation was \$315,587,167 and the exportation \$477,221,863, while the reexportation amounted to \$93,113.

During the economic year 1918-19 THE SUGAR CANE GROUND in Cuba amounted to 37,000,000 tons, with a product of 4,100,000 tons of sugar, as against 31,413,710 tons of cane and a product of 3,533,090 tons of sugar in the previous year of 1917-18. This shows an increase in the past year of 566,910 tons in the production of sugar.

The Jacksonville Shipping Co. has lately established two lines of steamers to make trips from Jacksonville to different ports of the coast of the north of Cuba, and from Port St. Joe, Florida, to Habana, respectively. Trips will be made to Cuba once a month.

According to figures furnished by the statistical section THE EXPORTATION OF LEAF TOBACCO through the port of Habana from the 1st of January to the 30th of September amounted to 253,417 bales, weighing 10,983,733 kilos. Of this quantity 183,054 bales were consigned to the United States; 26,770 bales to Argentina; 11,491 to Spain; 7,632 to Switzerland; 5,260 to Canada; 4,098 to Uruguay; and the rest to other countries.

On November 1 THE COMPAÑÍA CUBANA DE PRODUCTOS DE SILICE (quartz products) opened a new factory in Habana. The firm will manufacture all kinds of glassware and will use the

silicate of the island, which is of the best quality. The factory will employ 200 to 300 men and 60 women.

On October 28 an AERIAL FREIGHT SERVICE was established between New York and Habana. The hydroplane leaving New York on the date mentioned made stops at Atlantic City, Norfolk, Wilmington, Charleston, Jacksonville, Miami, and Key West, and brought a load of fountain pens worth \$100,000. Three passengers also made the trip.

According to estimates of the Department of Agriculture of the United States, the NEXT TOBACCO CROP IN CUBA will be worth \$50,000,000.

HAITI.

A press dispatch dated London, England, November 2, announces that the FIRST DIRECT STEAMSHIP SERVICE between Great Britain and Haiti, since 1899, will begin November 12, when the steamer *Conway* will leave London for Haitian ports.

M. Stenio Vincent has applied to the Port au Prince municipal council for a license giving him the right to operate an AUTOBUS SERVICE both in the city and the suburbs. This service, if authorized, will insure cheap transportation in and around the city, as it is proposed that the fare shall not exceed 4 cents inside the city limits and 20 cents outside.

In a recent issue of *Le Moniteur*, the official newspaper of Haiti, there was published an important message sent to the President by the Secretary of Agriculture in which the latter urged the necessity of deciding upon A VAST SCHEME OF IRRIGATION in order to increase the agricultural production in the plain districts. Mr. W. L. Rockwell, of the Bureau of Public Roads, United States Department of Agriculture, and Mr. E. R. Gayler, chief engineer, have made an extensive report on a project affecting a large territory in the region of Cul de Sac. The cost of building a modern system of irrigation in this region alone is put at 1,400,000 gourdes. In his reply to the Secretary of Agriculture the President expressed himself as strongly in favor of carrying out the above project.

HONDURAS.

A decree of the National Congress, dated March 12 and approved by the President, gives to Sres. José A. Rivas, Rafael Alduvín L., Camile Serrano Cáliz, Antonio M. Callejas, and Humberto Ferrari G., THE CONCESSION TO DEVELOP OIL FIELDS, COAL MINES, NAPHTHA, AND OTHER HYDRO-CARBONS which may be discovered in the departments of Colón, Olancho, El Paraíso, and territory of La Mosquita.

A decree of the National Congress dated March 28, prorogues Decree No. 56 of February 20, 1914, which permitted the IMPOR-

TATION OF CARBIDE OF CALCIUM IN SOLID OR GRANULATED FORM, CARBOLINE, AND CREOLINE free from government and city taxes for five years. The importation of "Garra-paticida" (bug poison) and similar articles is permitted free by this decree.

By decree of March 12, the National Congress approved the NEW CONTRACT OF THE GOVERNMENT WITH VACCARO BROS. & CO. In the contract the firm of Vaccaro promises to extend the line of the railroad already built into the department of Atlantida to the city of Yoro and to transport the mails free of charge between the United States and Honduras.

During the six months ending June 30, 1919, statistics of the port of Amapala, Honduras, show that 4,038 tons of merchandise were imported in 39 vessels, 37 of which were United States ships and 2 British. During this same period 500 tons of products were exported, 597,997 pounds of coffee constituting the major part of the shipments. Of the total coffee exportation 50 per cent was shipped to Havre, over 48 per cent to San Francisco, and the remaining amount to London. Bullion value at \$873,533 and concentrates valued at \$63,642 were exported to New York. Small quantities of indigo, hides and skins, and rubber completed the figures presented.

MEXICO.

The Bureau of Viticulture proposes to distribute in February and March, 1920, a million GRAPEVINE CUTTINGS, at an approximate price of \$13 per thousand, with the object of encouraging the development of this industry in the Republic.

The department of agriculture and Fomento has arranged to hold conferences and demonstrations relating to MODERN AGRICULTURAL MACHINERY with the object of acquainting Mexican farmers with the use of methods that will increase the yield of crops.

The Department of Industry and Commerce has been informed that the Rolph Navigation & Coal Co. has begun the operation of a STEAMSHIP LINE between ports of the United States and Pacific Coast ports of Latin America.

The federated boards of trade have decided to establish FOOD BOARDS to operate under the direction of local boards of trade in the principal cities of the Republic.

The acting governor of the State of Chihuahua has issued a decree forbidding Mexican laborers to go to the United States until a written contract has been made in each case in accordance with the provisions of article 123 of the Mexican constitution.

Unrestricted COTTON EXPORTS to the United States and to other countries are now permitted by the Mexican Government.

During the first nine months of the present year the EXPORTS OF PETROLEUM aggregated 56,777,880 barrels, 46,125,730 barrels of which were crude petroleum.

A German IMMIGRATION COMMITTEE has been established under the direction of the League for the Protection of Immigrants. The committee will furnish information to persons contemplating settlement in Mexico.

The Consul of Mexico in Glasgow has advised the Department of Foreign Relations that two PETROLEUM COMPANIES with a capital of £7,000,000 have been organized to operate in Mexico.

The President of the Agricultural and Electric Power Co. of Conchos has imported from the United States a thousand specimens of EDIBLE FISH for breeding purposes. These have been placed in a number of Mexican rivers.

NICARAGUA.

The Cuyamel Fruit Co. has laid out large BANANA PLANTATIONS on the banks of the Rio Grande, and is exporting the fruit directly to the United States. The employees of the Cuyamel company number 600, and with their families form the town of La Cruz with over 1,000 population.

A national company has begun the production of PERUVIAN BALSAM in the mountains of Chontales, where the trees which produce the gum are very plentiful.

Construction is completed on 11 kilometers of the NORTHERN HIGHROAD connecting Puerto Diaz with Juigalpa. This road will be of great advantage to the Chontales mining district, from which 200 pounds of gold are taken per month. In connection with this road the dock of Puerto Diaz, which will be the largest in Nicaragua, is being constructed.

Señor Manuel Gutierrez Peña has formed a company to establish a BREWERY in Managua, with a capital of 100,000 pesos. The brewery will adjoin the electric plant and ice factory, also the property of Señor Peña. The brewery will furnish enough beer for the country's consumption and will also export to other Central American countries.

An American company will shortly establish in Nicaragua a modern plant for PREPARING WOODS for export. Aside from other trees in Nicaragua, there are large numbers of pines on the Volcan del Viejo, and in other districts.

The Ferrocarril del Pacifico is constructing a NEW DOCK in Managua opposite the School of Arts. The dock will be of stone and reinforced cement.

The bureau of statistics has ordered forms to be printed for the REAL ESTATE TAX ON COFFEE PLANTATIONS. The forms

will give the name of the owner, the origin of the property, the amounts of land, and the value thereof, the number of employees, their salaries, list of buildings, machinery, trees that are producing and those that are not yet productive, the year's crop, and the expenses of gathering it.

PANAMA.

The property of the Compañía Petrolera de Chorchá was purchased last September by a New York firm, which intends to drill OIL WELLS at an early date.

The Secretary of the treasury by authority of the President, made a contract on September 23, with Señor Ramón Fernández to take charge of the construction of a PIER AT AGUADULCE, according to the specifications submitted by the department of promotion.

According to newspaper reports the Holland-American Steamship Line will establish a STEAMSHIP SERVICE BETWEEN VALPARAISO AND THE PORTS OF PANAMA, making ports of call along the northern coast of Chile.

PARAGUAY.

The data given below are taken from a publication recently issued by the General Bureau of Statistics of Paraguay on the foreign commerce of that country from 1914 to 1918. Export products, such as tobacco, tannin, and dyewoods, which before the war were shipped in large quantities to German markets, easily found new markets in the United States, England, France, Spain, and Italy. These countries, which until 1914 bought but little raw material of Paraguay, are now the principal customers of that nation. In 1915 Paraguay had 5,249,043 head of cattle, with a surplus of 500,000 head available for export, of which only 60,000, or 70,000 were sent to Argentine packing houses, and from 8,000 to 10,000 were utilized for domestic purposes in the manufacture of jerked beef. The result was the establishment of the San Antonio packing house, with a capacity of 1,000 head of cattle per day. This establishment began operations on January 1 last. Another packing house in which American capital was interested commenced to operate at Zeballos-cue in 1918, and now has a daily output of 60,000 pounds of meat. The San Salvador Meat Extract Co., with a daily capacity of from 50 to 90 head of cattle, utilized for the making of meat extracts and canned beef, has also passed into the hands of American capitalists. For a number of years the annual output of the Risso packing house has been from 8,000 to 15,000 beeves used in the production of jerked beef. It is estimated that the grazing regions of the Republic could easily feed 20,000,000 head of cattle.

Paraguay is a country of forests, with an area of woodland of not less than 11,250,000 hectares, on which grow in abundance construction timber, dyewoods, and wood for paper pulp and other uses. These resources if exploited industrially would also produce chemical products and different kinds of dyes. There are also a large number of fiber producing plants in the Republic, especially cotton, which could be exploited industrially at a profit. Oil-producing plants abound, such as coconut palms, copaiba, and spurge. These grow wild in various parts of the country. Of the forestal products quebracho or ironwood, from which tannin is obtained for export, is most valuable. This tree flourishes in the Chaco or western region, where there are factories which produce annually 30,000 tons of tanning extract. Lumber and timber for construction purposes are shipped to Uruguay and the Argentine Republic to the extent, in normal years, of 60,000 to 100,000 tons annually.

Tobacco is the most important agricultural product exported from the country. The exports of this staple in 1918 amounted to 7,010 tons, and but for the lack of transportation facilities 3,000 tons more would have been shipped. The orange crop in normal years amounts to about 220,000,000 oranges. Oil-producing products, such as spurge, peanuts, coconuts, etc., are exported, and corn is grown in abundance for local consumption. Mandioc, which is cultivated throughout the Republic, yields from 20,000 to 22,000 kilos per hectare, and is used entirely for food purposes; but starch, flour, tapioca, and alcohol could be manufactured from it on a large scale. Rice and sugar are also important products of the country, but the output at the present time is insufficient for domestic consumption.

In 1863 cotton was cultivated to the extent of 58,000,000 plants. Cotton fiber is used for the manufacture of fabrics and thread for home use. The production of cotton decreased during the war, but steps are being taken to cultivate it on a scale sufficiently large to supply the needs of home consumption and leave a surplus for export.

Iron, manganese, copper, and other minerals are encountered in abundance. The Ibicui iron mines were worked as early as 1863, and produced ore assaying 34 per cent iron. The Quiquió and Ibicuí manganese mines contain ores which assay as high as 63 per cent, and the ore deposits are estimated at 60,000,000 tons. Copper has also been found at San Miguel and Quiquió.

The foreign commerce of the five years, 1914-1918, was valued at 81,932,672 gold pesos, of which 35,526,223 gold pesos were imports and 46,406,449 gold pesos were exports. In 1918 this commerce amounted to 22,451,334 gold pesos, made up of imports, 11,051,622 gold pesos, and exports 11,399,712 gold pesos.

THE FOREIGN COMMERCE of the Republic amounted to 12,628,891 pesos gold (gold peso equals \$0.9648) for the first six months of the present year, of which 6,006,660 pesos represented the importation and 6,662,231 pesos the exportation. The principal imports were textiles and foodstuffs; the exports quebracho extract, tobacco, and preserved meats.

Under the name of "Comitato Commerciale Italiano" an ITALIAN CHAMBER OF COMMERCE has been formed in Asunción to increase trade and friendly relations between Italy and Paraguay. This organization proposes to open a permanent exposition of Italian products in that city.

The Central Product Co., of Paraguay, has obtained the consent of the National Government to establish A NATIONAL COASTWISE SERVICE with its own vessels.

PERU.

By a decree, dated September 3, the Provisional President ordered the creation of a SUBSISTENCE DEPARTMENT as a part of the ministry of the treasury, to take charge of the statistics in relation to the national production and consumption of foodstuffs; to study the prices in relation to the costs of the same; and to determine the cause of the rise in prices.

The Provisional President of the Republic on September 3 signed a resolution providing that THE REDUCTION OF IMPORT TAXES ON RICE made by resolution of August 2 will be effective only for cargoes arriving after the date of the decree.

By a resolution of the Provisional President of the Republic, dated September 3, it has been determined that the haciendas of the Provinces of Lima and of Callao shall devote 15 per cent of their cultivated land to the production of GRAINS AND VEGETABLES. The lands that are sown for pasturage are not to be included in the 15 per cent.

The coastwise ship-owners of Callao met on October 15 at the Chamber of commerce and agreed to put AN INCREASE IN FREIGHT RATES into effect, which will be 2 sols (1 sol=about \$0.50 U. S.) per ton on merchandise, and 1 sol per ton on empty sacks.

A decree of the President of the Republic, dated October 17, authorizes the EXPORTATION OF HIDES AND SKINS with the duty fixed by law. The same decree states that exportation will be permitted only after local demands have been supplied, and that the prices "shall not be lower than those obtained since September 19, 1919."

A decree of the President of the Republic, dated October 10, orders the REGULATION OF IMMIGRATION in the following form: The country will pay a third cabin passage for an immigrant of the

white race, who is not a gypsy, and for three members of his family; the country will also guarantee the payment of his lodging and maintenance for six days, and all his household goods and personal property, tools, etc., will be given entry free from customs duty.

URUGUAY.

On August 11 last the treasury department ruled that EXPORT PERMITS are not to be issued until after payment for same has been made.

Under a decree of August 13 last the department of public works appointed a committee composed of Pedro Aramundia, Dr. Asdrubal Delgado, Dr. Federico P. Arrosa, Dr. Eugenio Lagarmilla, Engineer Carlos Arocena, Serapio Uran, jr., Julio C. Barrerira, Francisco J. Ros, and others, for the purpose of studying TIME TABLES, TARIFFS, stock transportation, etc., in connection with the railway services of the country.

A resolution of the department of industry of August 15, 1919, appoints a committee of agronomic engineers to investigate and report upon a better use of the PALM forests of the Department of Rocha. The report is to cover the fruit, the manufacture of alcohol, oil and food therefrom, as well as a detailed study of the leaves, their use for feed and textile purposes, and the manufacture of palm honey from the juice of these plants.

The Department of interior states that the stock of WHEAT on hand during the first half of September last was 30,193,754 kilos. The cereal crop in 1918-19 consisted of 187,523 tons of wheat, 12,659 tons of flax, 18,701 tons of oats, 1,578 tons of barley, and 455 tons of alpiste.

The EXPORTS OF MEATS during the first eight months of the present year were as follows: 307,844 carcasses of frozen wethers, 659,567 quarters of frozen beef, and 1,268 quarters of chilled beef. During the same period of 1918 the exports of frozen mutton were 268,000 carcasses, frozen beef, 347,000 quarters, and chilled beef, 1,014 quarters.

The Government recently issued a decree exempting from customs charges registered and unregistered packages containing articles on the free list, even though these packages are intended for commercial purposes.



ECONOMIC^{AND} FINANCIAL AFFAIRS

ARGENTINA.

According to data published by the General Bureau of Commerce and Industry of the Argentine Government, the assets of Argentine commercial companies consist of the following values in Argentine pesos, currency: Real property, 281,874,546; personal, 413,134,807; bonds, 69,023,680; unsecured credits, 321,319,257; mortgages, 209,205,574, and pledges, 41,470,715. The national industrial societies have the following assets in Argentine pesos, currency: Real property, 266,070,582; bonds, 22,400,801; unsecured credits, 78,509,840; mortgages, 16,095,121; and pledges, 4,961,840. The assets of commercial foreign companies in national currency are as follows: Real property, 280,609,890; personal property, 551,821,105; bonds, 59,727,279, and unsecured credits, 201,672,454. Foreign industrial companies have the following assets in Argentine pesos, currency: Real property, 236,870,784; personal property, 253,164,258; bonds, 26,983,529; unsecured loans, 38,985,745; and mortgages, 517,332. The reserve fund of foreign companies is 117,539,491, while that of domestic companies is 254,734,306. The reserve fund of the national railways is 337,540 pesos, currency, and of foreign railways, 96,066,141 pesos, currency.

The Hispanic South American Bank, established about five years ago by Antonio Porto, has just opened a branch in Buenos Aires.

A statement of the Spanish Bank of the River Plate shows that during the fiscal year ended June 30, 1919, its net profits were 8,379,623 pesos, currency. This enabled the bank to liquidate obligations aggregating 1,340,342 pesos, currency, pay an extra dividend of 3 pesos per share, and credit to the assets corresponding to the present fiscal year 487,675 pesos.

The committee of the house of deputies recommend the following BUDGET expenditures for 1920, the amounts being expressed in Argentine paper pesos: Congress, 4,790,260; department of interior, 54,726,068; foreign relations, 4,295,534; finance, 16,325,164; public debt, 124,006,484; justice and public instruction, 75,861,814; war, 35,792,572; marine, 31,163,026; agriculture, 10,255,880; public works, 13,698,875; pensions, retirement, etc., 17,414,244; public works, 25,619,900, and subsidies and charity, 11,825,304. The principal items of receipts are estimated as follows: Imports, 97,000,000; internal taxes, 80,000,000; income taxes, 33,000,000; patents, 6,000,000; and stamps, 25,000,000.

CHILE.

A recent report of the department of finance states that in 1918 there were 13 life INSURANCE COMPANIES in operation in the Republic, 9 of which were national, 2 American, and 2 English. Foreign fire insurance companies had 22 agencies in operation, 6 of which were German and 16 English. There were also 53 domestic fire insurance companies doing business in the Republic, and 9 foreign maritime companies, 8 of which are English and 1 German. The amount of fire insurance written in 1918 aggregated 2,119,749,756 pesos, an increase of 531,156,220 pesos over that of 1917. The value of life insurance policies taken out in 1918 was 59,511,660 pesos as compared with 45,141,506 in 1917. Maritime insurance in 1918 decreased in the sum of 3,981,290 pesos. The license taxes of these insurance companies in 1918 aggregated 253,000 pesos, while the 2 per cent tax on premiums of fire insurance companies amounted to 546,766 pesos, or 35,729 pesos more than in 1917.

COLOMBIA.

The Caldas and the Ruiz de Manizales banks have loaned to the CALDAS RAILWAY CO. \$600,000, gold, to be used in continuing construction work.

The department of the treasury has ordered the mint in Bogota to issue NICKEL COIN of the denomination of 5 centavos. These coins are badly needed in facilitating small business transactions.

Under a contract made with the government of Antioquia Gabriel Posadas has been commissioned to act abroad as the fiscal agent of the department of Antioquia in NEGOTIATING LOANS, the furnishing of information, and propaganda work.

Under date of September 3 last the executive power promulgated a decree authorizing the treasury department to circulate \$600,000 in TREASURY CERTIFICATES of the denomination of \$1. These certificates are to be issued exclusively in exchange for certificates of the same class of \$10 denomination.

The law enacted by Congress for the DREDGING AND CANALIZATION of the ports of Cartagena and Buenaventura, under the same conditions as those for similar work at Bocas de Ceniza and the port of Barranquilla, also sets aside for this purpose a part of the customs duties and port dues of the Barranquilla customhouse, as well as such receipts from taxes as may be levied for the carrying on of this work.

The department of home affairs (Gobierno) has contracted with an English firm to engrave 11,028,000 POSTAGE STAMPS of the denominations of $\frac{1}{2}$, 1, and 3 centavos, and 1, 2, 5, and 10 pesos.

CUBA.

By a law published on August 22, a SUBSIDY WAS GRANTED TO THE MANZANILLO-NIQUERO RAILROAD, amounting to \$12,000 for every kilometer. This railroad will go through Calicito, Campechucla, Ceiba Hueca, San Ramon, Media Luna, and Vicaria. The company which obtained the concession to build the railroad will begin to receive the subsidy after constructing the first five kilometers.

During the economic year of 1918-19 the CUSTOMS DUTIES amounted to \$39,546,560, which shows an increase of \$57,556 over the revenue of 1917-18, which was \$39,489,004. As the estimate of the budget for 1918-19 was \$37,000,000, this figure has been exceeded by \$2,546,560.

On September 17 THE CUBAN STEAMSHIP CO., VIAJERA ANTILLANA was organized in Habana, with an authorized capital of \$4,000,000, represented by 20,000 shares of preferred stock, with a fixed dividend of 8 per cent and a nominal value of \$100 each; and 20,000 common shares. The company is making arrangements with English and American shipyards for the construction of seven steamers.

The greatest CUSTOMS REVENUE ever taken in the port of Habana in one month was collected in the month of October, amounting to \$3,511,442.

MEXICO.

On October 15 last Great Britain renewed its POSTAL MONEY ORDER SERVICE with Mexico.

The governor of Yucatan has removed all taxes on the exploitation of HENEQUEN with the exception of one which is to be subject to a schedule corresponding to the price of the fiber, said price to be fixed semi-monthly by the executive power of Yucatan.

On October 7 last the Secretary of the treasury fixed the following charges for the minting and reminting of GOLD COINS: Aztecas, 0.5 per cent; hidalgos, 0.6 per cent; half hildagos, 0.7 per cent; and quarter hidalgos, 0.8 per cent.

In September last the receipts of the Federal DISTRICT GOVERNMENT were 1,636,279 pesos, and the expenditures 1,223,305 pesos.

The President has signed a decree repealing the powers granted to the MONETARY COMMISSION under decree of July 7, 1917, concerning the liquidation of BANKS OF ISSUE. The department of finance now has charge of these liquidations.

The MUNICIPAL BUDGET of Tampico for 1920 amounts to 2,000,000 pesos.

PARAGUAY.

THE CUSTOMS RECEIPTS amounted to 547,362 pesos, coined gold (peso gold equals \$0.9648) and 10,424,862 pesos paper, for the first six months of the year. Of this amount 271,073 pesos gold and 10,231,637 pesos paper represent the imports, 275,330 gold, and 94,070 paper the exports, and 959 gold and 99,155 paper the internal revenue.

According to the statement of the BANCO CONSTRUCTOR DEL PARAGUAY, for the first six months of the present year, the net profit for the aforementioned period was 548,337 pesos, national money.

Presidential decree of September 26 modifies the provisions of the IMPORT TAX law now in effect, which was approved by decree No. 3,987 of November 12, 1915.

PERU.

THE STATE OF THE PERUVIAN BANKS for the first half of the present year was the following: The Banco del Peru y Londres, on June 30, presented a balance of £10,276,670 with £140,446 gold and £49,010 silver on hand in its vaults. The Savings Bank of the Public Beneficence of Lima in its statement of July 31 presented a balance of £1,255,613. The mortgage and loan section on the same day presented a balance of £130,688. The Banco Internacional del Peru on July 31 published a balance of £1,332,436, having £109,006 in gold on hand. The loan section showed a balance of £27,175. The Banco Aleman Transatlantico, on June 30, showed a balance of £3,046,358; of this total 106,051 were gold pounds and 2,992 pounds silver.

According to statements presented June 30, 1918, THE BUSINESS OF INSURANCE COMPANIES during the first six months of the present year showed an increase in their total earnings, as follows: The 30th of June, 1919, showed in gross profits, interests, and rentals, £211,064,259, as against £170,637,089 for the six months ending June 30, 1918. For reinsurance and commissions, £82,780,290 as against £57,992,101 for the same periods. For claims paid, £48,802,909 as against £18,699,406, respectively. For general and property expenses, £25,359,304 against £18,488,076. For investments in real property, £351,929,681 against £320,804,434; for funds invested in securities, £171,362,065 as against £144,895,594.

At the meeting of the Society of Engineers a table showing the PROFITS OF THE RAILROADS AND STEAMSHIPS from 1890-91 to 1917-18 was made public. The profits of 1917-18 were 12,869,337 soles (sole=\$0.50 United States), exceeding those made in 1916-17 by the sum of 1,511,170 soles.

SALVADOR.

According to newspaper reports the BUDGET APPROVED FOR 1919-20 fixes the expenditures at 13,541,533 pesos (peso = \$0.8019) and the revenue for the year at 13,360,450 pesos. This shows a deficit of 181,083 pesos. The principal sources of revenue are given as follows: Import taxes, 5,600,000 pesos; export tax, 2,729,850 pesos; liquor tax, 2,995,100 pesos; sealed paper and stamps, 450,000 pesos; direct taxes, 495,000 pesos; various taxes, 303,500 pesos; and fees, 787,000 pesos. The expenditures have been computed as follows: Assembly and presidency of the Republic, 168,020 pesos; Government, 3,345,127 pesos; war and navy, 3,000,000 pesos; promotion, 1,657,823 pesos; public instruction, 1,269,381 pesos; public credit, 1,200,000 pesos; justice, 919,054 pesos; treasury, 878,521 pesos; beneficence, 693,460 pesos; foreign relations, 334,185 pesos; and agriculture, 75,960 pesos.

URUGUAY.

The receipts of the public treasury during the fiscal year 1917-18 were 33,270,513 pesos, while the EXPENDITURES amounted to 35,907,909 pesos, or a deficit of 2,637,396 pesos, the latter sum having been covered by a new appropriation made by Congress. The net customs receipts during the period referred to aggregated 11,461,503 pesos, which is 478,569 pesos more than the receipts of the preceding fiscal year.

To meet interest on the CONSOLIDATED DEBT OF URUGUAY and the railway guarantees, a payment has been made to the Bank of London and of the River Plate of 45 per cent of the customs revenues in addition to the amount of 5,206,437 pesos received by the customs officials on account of railway guarantee securities. The public debt on July 1, 1917, was 156,156,702 pesos. Adding to this the 500,000 pesos of the colonization loan and the amount contracted during the fiscal year, makes a total of 162,359,906 pesos. This amount, less exchanges and payments aggregating 1,836,267, left outstanding on June 30, 1918, a total of 160,523,638 pesos.

The CUSTOMS REVENUES in August last were 2,070,000, or 30,000 pesos in excess of the largest ever collected during the same month of prior years.

The department of finance has issued a decree regulating the REAL PROPERTY TAX LAW effective in Montevideo during the fiscal year 1919-20.

The BUDGET of the economic administrative board of the municipality of Montevideo for the present fiscal year, amounting to 3,449,440 pesos, was approved by Congress on August 22 last.

The senate finance committee has recommended that SILVER COIN of the denomination of 20 centavos be minted to the amount of from 300,000 to 500,000 pesos.

A report of the bank inspector shows the following results in Uruguayan pesos, representing average DAILY BALANCES: Cash on hand, 72,769,530; deposits in account current, 71,913,530; time deposits, 45,456,562; and advances, 141,823,767. The gold coin on hand at the close of August last was 62,238,685 pesos.

A legislative decree of September 15 provides that the funds on hand from the ADDITIONAL LICENSE TAX on insurance, as well as receipts from this source in future, shall be applied to the purchase of materials for the fire department of Montevideo and of the departmental capitals, as well as for construction, purchase, and repair of buildings for the use of firemen or for the betterment of the service.

VENEZUELA.

THE NATIONAL BUDGET OF PUBLIC RECEIPTS AND EXPENSES for the year beginning July 1, 1919, and ending June 30, 1920, as submitted by Congress June 21 and ratified by the President on June 28, calculates the receipts for the year at 49,153,000 bolivars (bolivar=\$0.1930) and fixes the expenditures at the same figure, divided as follows: Internal relations, 10,981,632; foreign relations, 1,327,032; treasury, 14,109,273; war and navy, 9,000,000; promotion, 4,263,288; public works, 6,193,800; public instruction, 2,791,548; appropriation for budget deficiencies, 486,428 bolivars. The principal sources of revenue as given in the budget are as follows: Import taxes, 10,500,000 bolivars; tax on cigarettes, 7,980,000; liquor tax, 6,750,000; salt tax, 6,500,000; stamp tax, 4,000,000; foreign debt surtax of 30 per cent, 3,300,000; national tax of 12½ per cent, 1,375,000; land tax of 12½ per cent, 1,375,000, etc.

In complete and final adjustment of the Franco-Venezuelan protocol of February 11, 1913, on October 1 the Venezuelan Government paid 57,692 bolivars, the last monthly payment on the DIPLOMATIC DEBT OF 3,000,000 BOLIVARS. According to the terms of the protocol French claims originating in causes prior to June 30, 1903, were estimated at this figure. The French chargé d'affaires at Caracas on October 1 gave a receipt in full to the minister of foreign relations.

The net profits of the BANCO DE MARACAIBO in the six months from January 1 to June 30 of the present year were 143,000 bolivars (bolivar=\$0.1930). The reserve fund of this bank is 107,534 bolivars, its authorized capital 1,250,000, of which 937,500 is in cash.

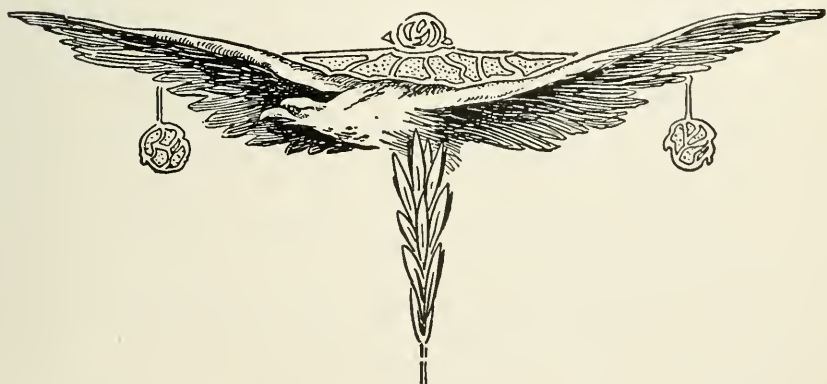
INTERNATIONAL TREATIES

COLOMBIA—HOLY SEE.

Pending the ratification by the Congress of Colombia the President of the Republic in November, 1918, ratified the CONVENTION CONCERNING THE EXECUTION OF ARTICLE "25" OF THE CONCORDAT, arranged in Bogota between COLOMBIA and THE HOLY SEE, on October 9, 1918. According to the convention the sum the Colombian Government is to pay to the church is fixed at \$82,000, which will be divided by mutual agreement of representatives of the contracting parties in the respective religious communities. The convention will be in force for 10 years from the date of its ratification.

PARAGUAY—SPAIN.

On June 23 last a TREATY OF EXTRADITION between Paraguay and Spain was concluded in Asuncion, Paraguay. The high contracting parties agree to reciprocally deliver persons prosecuted for offenses which subject them to a penalty of imprisonment of not less than two years, or its equivalent, and those who may have been punished a year with the same penalty as a minimum. In order that there may be cause for extradition, it is necessary that the crime calling for same be committed within the jurisdiction of the high contracting parties, and that the person accused should actually have been in that jurisdiction at the time the crime was committed. Either of the high contracting parties may terminate the treaty by communicating a year in advance to the other its intention so to do.



LEGISLATION

HAITI.

Under date of September 24, 1919, there appeared in the *Moniteur* the text of the law enacted on September 12 reorganizing the POSTAL SERVICE in Haiti.

MEXICO.

On October 27 last the President of the Republic issued a decree concerning new SILVER AND COPPER COINS. This decree provides that the new silver coins of the denominations of 1 peso, 50 and 20 centavos, shall have a fineness of 720 milesimos of silver and 280 milesimos of copper, and shall be considered merely as fractions of the gold coins. The new copper coin shall have a value of 10 centavos, a weight of 12 grams, and a composition of 95 per cent copper, 2.5 per cent tin, and 2.5 per cent zinc. These coins are restricted legal tender, and their receipt is only obligatory in a single payment of not more than 20 pesos for the silver coins, and 2 pesos for the copper coin. Any person may present any amount of these fractional silver and copper coins to the offices of the treasury for conversion into gold coin, provided the exchange is solicited in amounts of 20 or more pesos. The new coins will be received by the State in unlimited quantities in the payment of taxes on a par with gold. The silver coins of the denominations of 1 peso, 50, 20, and 10 centavos, issued in accordance with the law of November 13, 1918, shall continue to have the same legal tender power as was given them under that law while, in the opinion of the President, the conditions for the exchange of fractional coin may so require. The laws of March 25, October 31, and November 13, 1918, continue in force in so far as they do not conflict with the provisions of the present law.

PARAGUAY.

On July 18 the law was promulgated which changed article 5 of the ORGANIZATION OF MUNICIPALITIES. The law states that in the capital of the Republic there shall be a council of 9 regular members and 9 supplementary members and 1 mayor, to be elected in the proportion of 3 regular and 3 supplementary members to each municipal district. In the cities of Concepcion, Pilar, Encarnacion, Villarica, and other towns mentioned by the Executive, this council will consist of 7 regular members and 4 supplementary members and 1 mayor. In other towns of the Republic the councils will have 3 regular and 3 supplementary members.

VENEZUELA.

On June 27 was published a LAW CONCERNING MOUNTAINS AND RIVERS which repeals that of June 26, 1915. By virtue of the new law, mountains located in unclaimed regions are considered national property, and springs or other sources of water are to be protected and preserved. Such mountains are inalienable. All lakes, rivers, creeks, and springs located in unclaimed and public lands are regarded as the property of the State.

On June 24 was published the new LAW OF UNCLAIMED AND PUBLIC LANDS which repeals the laws of June 24, 1918, and April 8, 1904, and other laws on the same subject. Lands are considered unclaimed which are neither the property of any particular person, nor public lands, nor lands belonging lawfully to corporations or other juridical entities. Those lands will be considered as public lands which have been acquired or used as such by cities or towns; also the lands of vacated native villages, and unclaimed lands which in the future may pass to the dominion of such municipalities as request them. Unclaimed lands may be rented for a period not to exceed 15 years, but this term may be extended when the land has been improved. The rent shall be fixed at a rate not to exceed 3 per cent annually on the value of the lands. No greater amount of land may be rented to anyone than could be sold to him under the law. Lands may not be rented or sold unless the land census ordered by law has been in force. Any Venezuelan or stranger may buy lands. No foreign government may buy or rent lands. Whoever buys unclaimed lands does so at his own risk with the understanding that he recognizes the rights of the occupants conceded to them by law. It is forbidden to sell to one person, at one time, more than 1,000 hectáreas for agriculture, or more than 5,000 for stock raising. Larger quantities may be sold only when the Government considers it expedient for agriculture or stock raising in regions little developed. The minister of public works in the 15 days following the conclusion of the land owners' census will publish the lowest price per hectárea for the sale of lands for agriculture and stock raising, prices being fixed in each case by appraisers who will consider the richness and the situation of the lands. The resolution approving the sale shall be submitted to the decision of Congress, and the purchaser shall be obliged to pay the price of the land in full within 90 days after the consent of Congress to the sale is published.



PUBLIC INSTRUCTION AND EDUCATION

BRAZIL.

The general directorate of telegraphs has established A SCHOOL OF WIRELESS TELEGRAPHY on the Morro (hill) of San Antonio, Rio de Janeiro. The school also teaches ordinary telegraphy, and the use of the Morse and Baudet codes. It is provided with two wireless towers, one for short-range use and the other for long-distance messages.

CHILE.

The department of public instruction of the Chilean Government has authorized the Amuántegui Lyceum to begin a third course of NIGHT INSTRUCTION in general bookkeeping, commercial transactions, commercial arithmetic, commercial correspondence, type-writing, stenography, English, German, and French.

COLOMBIA.

The law of September 8 provides for the establishment in Bogota of a POLICE SCHOOL for the preparation and education of police officers and employees. The law authorizes the President to employ foreign instructors as teachers in this school, and to send every three years three of its most meritorious students to complete their education in this branch abroad. Not less than three scholarships are placed at the disposal of each of the departments.

According to official data during the last school year there were in the Department of Nariño six Government COLLEGES with an enrollment of 320 students, 11 private colleges with 1,079 pupils, 263 Government schools with 21,249 pupils, and 25 private schools with an enrollment of 1,383 pupils. The expenses of the department for educational purposes last year were \$168,083.

A report of the First National Pedagogic Congress, which was held in Bogota in 1917, has been published. The law under which this congress was held makes provision for holding the following congresses: The National Pedagogic Congress biennially in Bogota; departmental pedagogic assemblies annually in the capitals of the departments; provincial pedagogic assemblies annually in the capitals of the provinces; and monthly meetings of the pedagogic lyceums.

CUBA.

By a law of August 15 an appropriation of \$12,000 was made for THE CONSTRUCTION OF SIX SCHOOL BUILDINGS for ele-

mentary education, one to be built in each of the six municipalities of the Province of Camaguey.

HAITI.

In the *Moniteur* of September 27 there were published the NEW RULES governing the annual examinations which are taken by pupils of the elementary schools who wish to be awarded the certificate of primary instruction.

NICARAGUA.

The President of the Republic is to have a building constructed in the ward of Santo Domingo of Managua for a NATIONAL INSTITUTE. The principal educational institutions are located about the city in the following manner: In the eastern part, in the ward of Santo Domingo, the National Institute; to the south, the Teachers' Institute; to the west, the School of Applied Principles, an annex of the Teachers' Institute; centrally located is the Normal Institute for Schoolmistresses with its School of Applied Principles; and also to the west the Nuns' School for Young Ladies. There are also graded schools in all parts of the city.

In order to encourage professional education the President of the Republic has designated for the SCHOOL OF LAW, one of the best buildings of the city opposite the Palace of Justice.

On September 25 the LAW STUDENTS' CLUB was inaugurated in Managua. The object of the club is to contribute to the intellectual and general development of the students of this branch of learning.

PARAGUAY.

In the presence of the minister of public instruction, Government officials of Paraguay on September 23, the anniversary of the death in Paraguay of the Uruguayan general, Don José Artigas, laid the corner stone of THE ARTIGAS SCHOOL. The school is located in Trinidad, where the famous Uruguayan patriot passed his last days.

Presidential decree of July 23 changed the plan of NORMAL SCHOOL courses in the cities of Asunción and Villarica, extending it to four years instead of three, as prescribed by the decree of February 5, 1919.

The course of SECONDARY SCHOOLS (high schools) has been changed into two periods. The first period will be elementary and general, covering four years; the second will be preparatory and special and will cover two years.

In September A PROPHYLACTIC INSTITUTE was established under the direction of the distinguished Paraguayan physician, Dr. Victor Idoyaga.

URUGUAY.

The national administrative board, acting in cooperation with the department of public instruction, on February 16 last prepared a resolution approving the first and second year COURSES IN MECHANICS recommended by the board of directors of the school of engineers and annexed branches. The first year's course comprises thermodynamics, elements of machinery, steam generators and shop work, while the second year's course includes steam piston engines, steam plants, internal-combustion motors, hydraulic machinery, and shop and laboratory work.



GENERAL NOTES

ARGENTINA.

Preliminary steps have been taken looking to the concluding of a TELEGRAPH CONVENTION between Argentina and Uruguay, to take the place of a former pact which expired a few years ago.

Statistics covering the five-year period of the late war show that 220,000 persons, all of whom were foreigners with the exception of a few naturalized citizens, emigrated from Argentina. Nearly all of these were Italians and Spaniards. Notwithstanding this loss the immigrants arriving in the country exceeded this number by 2,632.

The lecture committee of the national board of women, an organization working for a greater development of culture among Argentine women, has called for a competitive LITERARY CONTEST from the women residents of the Republic, on subjects to be selected by the persons participating. The first prize is 300 pesos, the second, 200 pesos, and the third, a gold medal.

BRAZIL.

The Academy of Literature of Rio de Janeiro, in a recent meeting, formed a project tending toward the CLOSER INTELLECTUAL RELATION of Brazil with the other countries of the Americas. The academy proposes to create special committees to attend to the distribution of books and pamphlets among the different countries. The academy states its regret at the previous lack of knowledge of the literature of the various countries, particularly of the United States, saying that from the intellectual intercourse of the nations the greatest benefit can be derived. To this end it will call a congress of literature under the auspices of the various governments where literateurs from all the Americas may meet.

By presidential decree of September 24 the Brazilian legation in France was raised to an embassy.

Under the auspices of the Historical and Geographical Institute of Minas, THE SIXTH BRAZILIAN CONGRESS OF GEOGRAPHY took place the middle of September in the city of Belo Horizonte. All the States and the scientific institutions throughout the country took part. The fifth congress took place in Bahia, and the next congress will take place in the city of Parahyba in September of 1920.

THE SECOND BRAZILIAN CONGRESS OF ECONOMIC EXPANSION took place in Rio at the same time as the second grand annual fair of the federal district.

About the middle of September a PARTY TO EXPLORE THE ANDES under the direction of the American explorer, Dr. Hamilton Rice, arrived at Manaos. The party will map the territory of the upper Rio Negro and the upper Orinoco to the north of the Amazon as far as the section of Venezuela bounded by that river. In addition to the maps, astronomical observations will be made and the magnetic variations determined that are noted in regions between latitudes 3° north and 3° south and 7° west of the 68th meridian. Dr. Rice will be accompanied by his wife, who will make the whole journey across Brazil. Dr. Guy G. G. Byers, of Roosevelt Hospital of New York, will make a study of the fevers and other diseases of the Indian tribes; Mr. C. H. Ober, of the Geodetic Bureau of the United States; Mr. William J. Lavarre, geologist of Harvard University; Mr. John W. Swanson, wireless operator; and Mr. John C. Cousins, electrical engineer, will be of the party. Aside from the topographical work of the rivers, finding the altitudes, and the medical work, a study will be made of the geological formations, and of the flora and fauna of these regions. Dr. Rice will be gone for a year.

The directive councils of the Commercial Association of Rio de Janeiro and of the Federation of Commercial Associations have set May 13, 1920, for the meeting of the FIRST CONGRESS OF COMMERCIAL ASSOCIATIONS OF BRAZIL, to take place in the capitol of the Republic.

CHILE.

The charity board of Santiago installed a SANITARIUM on September 28 last at San Jose de Maipo in the vicinity of the national capital.

The CABINET of Chile, reorganized on November 8 last, is as follows: José Florencio Valdés, minister of interior; Alamiro Huidobro, minister of foreign relations; José Bernaldes, minister of public instruction; Guillermo Subercasseaux, minister of finance; Germán Riesco, minister of war; and Oscar Dávila, minister of public works.

COLOMBIA.

Congress has passed a law appropriating \$60,000 for the construction at La Dorada, a port on the Magdalena River, of a hotel, quarantine station, warehouse, hospital, aqueduct, etc. This law also sets aside \$20,000 for the sanitation of Puerto Niño on the Magdalena River and provides for the erection of PUBLIC BUILDINGS in the city of Manizales, Department of Caldas.

The President has reorganized his CABINET as follows: Dr. Luis Cuervo Márquez, secretary of home government; Jorge Roa, secretary of war; Pomponio Guzmán, secretary of foreign relations; Dr. José Joaquín Casas, secretary of public instruction; Dr. Miguel Abadía Méndez, secretary of finance; Dr. Estaban Jaramillo, secretary of the treasury; Jesús del Corral, secretary of agriculture and commerce; and Dr. Luis S. Cotes, secretary of public works.

The President has issued a decree providing for the erection in Bogota of a STATUE to Dr. Rafael Nuñez. Provision has also been made for the erection of a statue in Bogota to Dr. José Ignacio de Marquez.

A decree of the governor of the Department of Cundinamarca authorizes the use of prisoners in repairing and opening PUBLIC ROADS.

Ernesto Ponce de Leon has been appointed chief of the BUREAU OF INFORMATION and propaganda office of Colombia in New York.

A group of merchants of Medellin propose to build in that city a MODERN HOTEL containing 100 rooms.

CUBA.

On October 21 Dr. Gonzalo Aróstegui was appointed MINISTER OF PUBLIC INSTRUCTION to replace Dr. Domingo Roldán, who resigned.

The resignation of Sr. Armando Godoy as member of the CUBAN SECTION OF THE INTERNATIONAL HIGH COMMISSION having been accepted, Dr. Sebastian Gelabert has been appointed to fill the vacancy.

TELEPHONIC COMMUNICATION BETWEEN NEW YORK AND HABANA will soon be a fact, for a company was formed October 27 in Habana, to be known as the Cuban-American Telephone & Telegraph Co. with a subscribed capital of \$2,000,000, which will take up the project. The new company will have four telephone lines and eight telegraph lines from Habana to New York via Key West. Communication will also be established between Santiago de Cuba and Montreal, Canada.

ECUADOR.

The department of foreign relations was informed by the Ecuadorean minister at Bogota, Colombia, that the senate of that Republic

had appropriated sufficient funds to ERECT A SHAFT or column in commemoration of the agreement relative to the frontier made by the two countries.

In the office of the municipal council various proposals have been received FOR THE CONSTRUCTION OF A HYDROELECTRIC PLANT IN QUITO.

The Congress of the Republic has approved the draft of the law ordering the publication of THE POSTHUMUS WORKS OF MANUEL J. CALLE. The edition ordered by Congress will be of 5,000 copies, and the proceeds of the sale will be given to the heirs.

GUATEMALA.

Dr. Manuel Estrada Cabrera, President of Guatemala, has recently been honored by being made a CORRESPONDING MEMBER of the Ateneo Hispano-Americano of Buenos Aires.

The TEACHERS' SOCIETY of the department of Chimaltenango has been organized in the following manner: President, Don J. Adrián Zepeda; secretary, Don Julio Paniagua; treasurer, Don Federico King.

The Secretary of State of the United States, on November 15, received in special audience the special mission which the Government sent to Washington to present a vote of thanks to President Wilson in the name of the people of Guatemala for the part he played in the war with Germany. The members of the mission were Sres. Maximo Soto Hall, Manuel M. Giron, and José Serrano Muñoz.

MEXICO.

The President has selected October 31, 1920, as the date for taking the GENERAL POPULATION CENSUS of the Republic.

An executive decree of October 13 makes the "Asilo de Nuestra Señora de la Luz" (Asylum of Our Lady of the Light) a juridic entity, and concedes to the organization the franchises granted under the law of October 23, 1904.

The JUDICIAL POLICE, an organization composed of from 20 to 30 members, was recently formed in the national capital.

The department of foreign relations of October 28 last sent a circular to Mexican consuls recommending that they be very liberal in the viséeing of PASSPORTS of persons desiring to go to Mexico.

Press reports state that orders have been given requiring the Mexican navy to adapt its vessels for the use of PETROLEUM as a fuel.

The President of the Republic has appointed justices and JUDGES to sit in the federal district and territories.

The MEXICAN ACADEMY OF HISTORY, which corresponds to the Royal Academy of Madrid, and which has the same corre-

spondents in Mexico, was recently organized. The director of the Academy is Luis Gonzalez Obregon, and the secretary is Manuel Romero de Terreros.

NICARAGUA.

THE DRAFT OF THE CIVIL CODE as prepared by Dr. Alfonso Ayón is now under discussion by the Supreme court. The court has appointed Magistrate Dr. Pasos Jarana to edit the draft of the code and put it in proper form to be submitted to the national Congress during its first sessions in the coming January. Among the reforms is the limitation of the right of making wills. The right to make wills will be governed by a special regulation somewhat similar to that contained in the Civil Code of 1871. There are also innovations to protect individual and social liberty.

PANAMA.

The Republic of Panama sent as its REPRESENTATIVE TO THE CONGRESS OF SURGEONS held in New York, October 20, Dr. A. S. Boyd.

Thanks to the efforts of President Porras, THE ELECTRIC LIGHT IN AGUADULCE was installed September 29.

The President, Dr. Porras, recently received the PLANS FOR A NEW HOSPITAL to be built on the slope of the Cangrejo, the grounds extending over 6 hectares. The cost of construction is estimated at \$400,000.

The municipal treasury has appointed a committee to take the CENSUS OF THE DISTRICT OF PANAMA, and to apportion the road tax.

PARAGUAY.

A public subscription has been started in Asuncion to erect a MONUMENT to Dr. Manuel Franco, late President of Paraguay.

Executive decree of July 28 appointed SPECIAL CORRESPONDENT OF THE PAN AMERICAN UNION Dr. Genaro Romero director of the consular service of the ministry of foreign relations. This appointment was made at the request of the Governing Board of the Pan American Union.

THE NEW MINISTER PLENIPOTENTIARY OF ARGENTINA to Paraguay is Dr. Eudoro Vargas Gómez, who takes the place of Dr. José Maria Cantilo, transferred with equal rank to Portugal.

URUGUAY.

On September 17 last the President of the Republic appointed a MILITARY DELEGATION composed of Gen. Julio Dufrechou, Capt. Eduardo Vazquez, Capt. Mateo Tula, and Capt. Lafon Gomez to proceed to Europe on a TOUR OF STUDY and for the purpose of acquiring material for the Uruguayan army.

Virgilio Sampognaro has been appointed by the Uruguayan Government as High Commissioner to represent that country in the BOUNDARY SURVEY with Brazil.

VENEZUELA.

In order to bring about closer intellectual intercourse between Venezuela and Uruguay, the National Academy of History, in a session held the last of September, elected as CORRESPONDING FOREIGN MEMBERS, Sres. Luis Melián Lafinur, Eduardo Acevedo, Luis Alberto de Herrera, and Gustavo Gallinal, all well-known literati of Uruguay.

Early in October A URUGUAYAN MISSION to take home the remains of Sr. Don Carlos Blixton, Uruguayan Minister to Venezuela, arrived in Caracas. This mission arrived on the cruiser *Uruguay*, returning from Mexico, where they had taken the remains of Amado Nervo, the famous Mexican poet, who at the time of his death was Mexico's Minister to Uruguay.

Dr. G. T. Villegas Pulido, attorney general of Venezuela, and a distinguished jurist, has lately published in Caracas the second edition of "Foreigners in Venezuela, refusal of entry, and expulsion," of which he is author. The book contains seven chapters, number 6 containing the law governing foreigners as last passed, and number 7 containing a review of the refusal of entry and the expulsion of foreigners in various countries.

On September 27 the municipal council of Maracay resolved to NAME THE STREETS AND AVENUES OF THE CITY, and stated by what names they should be known in the future.

The Government of Venezuela has advertised for sealed bids to be submitted before June 30, 1920, for the construction of a WIRELESS STATION near Caracas. The station will be sufficiently strong to communicate with similar stations in the United States and Europe. It will have one installation for emission of sustained waves served by high frequency alternators, and another for the emission of deadened waves to communicate with wireless stations not provided with the system of sustained waves. Alternating, tri-phase electric current now distributed at 190 volts and 50 cycles is available, but the plant must have a reserve motor. Bids should show the general plan of installation and detailed plans and cuts necessary to give a complete idea of the work: a general description of the machines and of their operation; time required to complete the work; and the detailed and total cost. The Government will pay quarterly, according to the progress of the work, reserving 10 per cent of each payment until final completion. Bidders must undertake to manage and operate the plant for six months after completion.

SUBJECT MATTER OF CONSULAR REPORTS

REPORTS RECEIVED TO NOVEMBER 28, 1919.

Subject.	Date.	Author.
ARGENTINA.		
Proposed Argentine domestic loan.....	1919. Sept. 6	W. Henry Robertson, consu general at Buenos Aires.
First Argentine National Economic Conference.....	Sept. 26	Do.
BRAZIL.		
Manufacture of glassware to be started at Bahia.....	Aug. 15	Edward Higgins, consul at Bahia.
Model stock farms to be established by State.....	Aug. 16	Do.
State to aid private enterprise.....	Aug. 20	Do.
State of Bahia to take over Brazilian publications.....	Aug. 22	Do.
Free dental post for Bahia.....	Sept. 1	Do.
Annual report on commerce and industries for State of Santa Catharina, 1918.	Sept. 12	Samuel T. Lee, consul at Porto Alegre.
CHILE.		
Chilean nitrate.....	Aug. 30	Carl F. Deichman, consul at Valparaiso.
Freight rate increase granted to Antofagasta and Bolivia Rail- way Co.	Sept. 11	B. C. Mathews, vice consul at Antofagasta.
CUBA.		
The use of tractors in Cuba.....	Sept. 1	H. C. Von Struve, consul in charge at Habana.
Two-cent postage required on letters to Cuba.....	Oct. 29	H. W. Harris, consul gen- eral at Habana.
ECUADOR.		
Motion-picture market in Ecuador.....	Oct. 7	Frederic W. Goding, consul general at Guayaquil.
The use of motorcycles.....	Oct. 8	Do.
GUATEMALA.		
Market for cotton yarn.....	Oct. 6	Henry S. Waterman, vice consul at Guatemala City.
Steamship liner service.....	Oct. 15	Do.
HAITI.		
Steamship lines touching Haitian ports.....	Sept. 1	Lemuel W. Livingston, con- sul at Cape Haitien.
HONDURAS.		
Market for men's ready-made clothing.....	Oct. 20	C. K. Donald, consul at Tegucigalpa.
"Te Pimienta," a tea and coffee substitute.....	..do....	C. Cletus Miller, vice consul at Puerto Cortez.
"Te Sacate," a native medicine.....	Oct. 25	Do.
MEXICO.		
Presidential decree modifying the Mexican tariff of import duties of July 31, 1919.	Sept. 12	Charles H. Cunningham, consul general at Mexico City.
The use of motorcycles and other motor vehicles.....	Sept. 13	Francis J. Dyer, consul at Nogales.
Cultivation and marketing of garbanzos, or chick peas, in State of Sonora.	Sept. 25	Bartley F. Yost, consul at Guaymas.
Motion-picture market.....	Sept. 26	G. R. Willson, consul at Matamoros.
Market for hand corn mills.....	..do....	W. E. Chapman, consul at Mazatlan.
The use of motor vehicles.....	..do....	Do.
Market for shoes with canvas tops and rubber soles.....	..do....	Do.
Report on Mexican mining laws.....	Sept. 27	Francis J. Dyer, consul at Nogales.
New waterworks system for Maxicali.....	Oct. 4	Walter F. Boyle, consul at Maxicali.
Motion-picture business.....	Oct. 5	O. Gaylord Marsh, consul at Progreso.
Commercial report.....	Oct. 8	E. C. Jones, vice consul at Mazatlan.

Reports received to November 28, 1919—Continued.

Subject.	Date.	Author.
MEXICO—continued.		
Market for railroad crossings.....	1919. Oct. 15	Edward A. Dow, consul at Ciudad Juarez.
Vegetable oil-bearing products and vegetable-oil industry.....	Oct. 16	O. Gaylord Marsh, consul at Progreso.
Use of motor vehicles in Ciudad Juarez district.....	Oct. 22	Edward A. Dow.
Apple orchards in northern Mexico.....	Oct. 25	Do.
Freight rates on motor vehicles to points in Mexico.....	Nov. 1	Do.
Manufacture and use of breadstuffs in northern Chihuahua.....	Nov. 5	Do.
PANAMA.		
Population of Canal Zone.....	Oct. 2	Julius D. Dreher, consul at Colon.
High prices of coconuts at Colon.....	do.	Do.
Motion-picture business.....	Oct. 3	Do.
Motion-picture market.....	Oct. 23	Alban G. Snyder, consul general, Panama City.
Report on commerce and industries for September, 1919.....	Oct. 25	Do.
VENEZUELA.		
Use of motor vehicles.....	Sept. 16	Chester E. Davis, vice consul at Maracaibo.
Motion-picture business.....	Oct. 2	George R. Phelan, vice consul at Puerto Cabello.
Business activity in Maracaibo.....	Oct. 12	Chester F. Davis.

BOOK NOTES

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ARGENTINA.

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 Memoria presentada al Congreso Nacional. Ministerio de Hacienda, 1919. La Paz, Lit. e Imprenta "Moderna," 1919. iv, 324 p. 4°.
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CHILE.

- Ley sobre contribución de haberes. Programa de reforma. La calorización territorial de la república. Valparaíso, Imp. Universo, 1918. diagrs. 421 (1) p. 4°. (Publicación de la Dirección General de Impuestos de Internos.)
- Memoria presentada al ministerio de hacienda por el director general del servicio, 1918. [Santiago de Chile], Imprenta de la Dirección general de Impuestos Internos, 1918. diagrs. 27 p. 4°.
- Memoria del Ministerio de Instrucción Pública presentada al Congreso Nacional en 1919. Santiago de Chile, Imprenta Universitaria, 1919. 387 p. 8°.
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COLOMBIA.

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CUBA.

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